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SERIES I. EVALUATION OF FOREIGN FRUITS AND NUTS

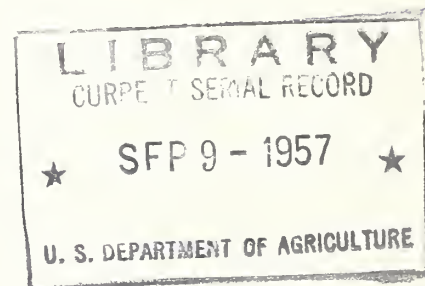
NO. 8. LATE BLOSSOMING PEACH AND NECTARINE
VARIETIES TESTED AT CHICO, CALIFORNIA

By

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This is a progress report on the evaluation of foreign fruits prepared as a cooperative service to state and federal experiment stations, the interpretation of which may be modified with additional experimentation. Varietal names listed are those under which the material was introduced. Publication, display or distribution of any data or any statement herein should not be made without prior written approval of the Crops Research Division, A.R.S., U. S. Department of Agriculture.

July 1957

Late Blossoming Peach and Nectarine Varieties
Tested at Chico, California

by William L. Ackerman,* U.S. Plant Introduction
Garden, Chico, California

1. CLARA MEYER

Prunus persica

Literature and Miscellaneous Notes

Catalog of Pennell and Sons Ltd., Lincoln, England, 1954-55. P.persica Clara Meyer (orn.). Double flowering peach, fine large double flowers, dark crimson in bud, turning bright rose with dark center, free flowering and a good grower.

Catalog of Edwin Murrell Ltd., Shrewsbury, England, 1955-56. Clara Meyer (orn.) flowering peach, richest rose-pink double flowers in April, large and in thick clusters. One of the loveliest flowering trees.

Catalog of George Jackson and Son, Woking, Surrey, England, 1954-55. Clara Meyer. Variety of double peach with masses of rosette-shaped rose-pink flowers. Habit twiggy and broadly bushy-headed. The fruit is edible. 15 to 18 ft. by 18 to 20 ft.

Catalog of Barnham Nurseries Ltd., Barnham, Sussex, England, 1954-55. Clara Meyer. Double flowering peach, rose-pink, flowers in April.

Catalog of Hillier and Sons, Winchester, England, 1954-55. Clara Meyer (orn.) (flore roseo pleno) Flowers double, peach pink.

Catalog of Thomas Rivers & Sons, Ltd., Sawbridgeworth, Hertfordshire, England, 1954-55. Clara Meyer (double peach) April, rose-pink flowers, fruit is edible.

Listed by 18 of 25 English catalogs examined 1/12/57.

Listed by 1 of 8 French catalogs examined 1/12/57.

Listed by 1 Holland catalog examined 1/12/57.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

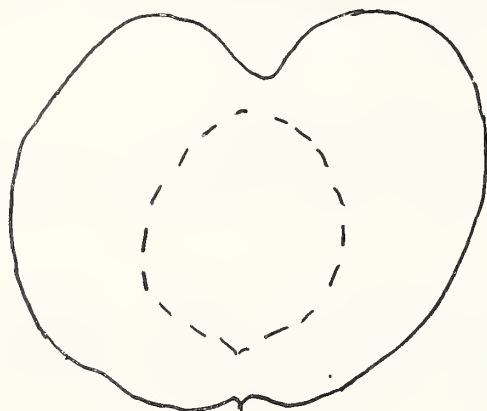
P.I. 110199 Clara Meyer. Plants received from Fratelli Sgaravatti, Saonara, Padova, Italy, April 1935. Date picked at Chico 8/30/38. Season 8/25-30/38. Clara Meyer was 33 days later than Veteran in 1938. Fruit hangs fairly well. Size, variable, average measurements; length 4.9 cm., diameter 5.2 cm., and weight 72 gms. Shape roundish, compressed along the sutures, halves unequal. Cavity medium depth, wide, flaring. Suture medium depth. Apex roundish, lightly depressed. Skin: color, greenish creamy-white, thin, tender,

*Horticulturist.

free of the flesh, pubescence medium, dots obscure. Flesh: color creamy-white, stained brown around the pit, texture melting. Juice moderately abundant. Flavor subacid. Quality poor. Stone free, small, plump, bluntly pointed, surface pitted and corrugated, brown.

Time of full bloom of Clara Meyer was 4/8/49 and 4/6/50. Time of full bloom of P. persica rosea flore pleno was April 6 for both of those same years. These two clones are thus close competitors for being the latest peaches to bloom at the Chico Plant Introduction Garden.

Flowers are double, pink, large, showy. Leaf glands are reniform.



110199
Clara Meyer



2. CRIMSON

Prunus persica

Literature and Miscellaneous Notes

Catalog of Lasscock's Nurseries, Australia, 1939. Crimson - Double flowering peach. Flowers are bright crimson.

Catalog of Wick's Nurseries, Australia, 1939. Crimson - Flowers very bright crimson.

Catalog of Brunning and Sons, Australia, 1939. Double Crimson - Double flowers, very pretty, does not bear fruit.

Catalog of Harrison's Nurseries, New Zealand, 1940. Crimson - Deciduous. Deep double crimson or cerise.

Catalog of Webb's Nurseries, New Zealand, 1940. Crimson - Deep double crimson-scarlet flowers; the well known variety.

Listed by 6 out of 7 Australian catalogs examined.

Listed by 4 out of 7 New Zealand catalogs examined.

Evaluation Data

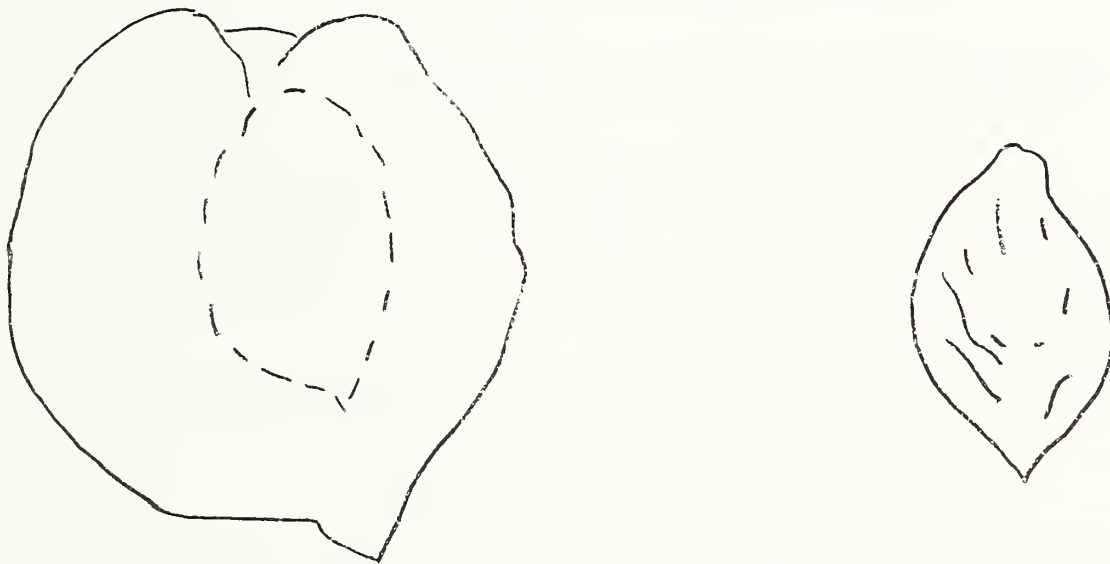
U. S. Plant Introduction Garden, Chico, California

P.I. 133729 Crimson. A double-flowering peach. Plants received from Lasscock's Nurseries, Lockleys, South Australia, in 1939. Date ripe at Chico 8/10/51 and 8/16-18/56. Crimson was 2 days earlier than Russell's Red in 1951, and 4 days later in 1956. Crop very light in both 1951 and 1956. Size 4.5 to 5.2 cm. in diameter. Shape oval, short beak at apex.

Skin: color creamy-white, blushed 5 to 10 per cent of surface, pubescence medium light. Flesh: color white, texture medium grained. Sugar content medium-light, acid medium-heavy. Quality poor. Fruit medium-firm. Stone semi-cling to cling. Kernel bitterness heavy. Fruit rating very poor to poor.

Time of full bloom for Crimson: 4/4/49, 3/25/50, 3/27/51, 3/28/52 and 3/14/53; average date of full bloom for all years is March 26, the same as for Russell's Red. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53 with an average date of March 20. Among approximately 900 peaches and nectarines blossoming at Chico, Crimson was listed among the 34 latest clones as based upon the average full bloom of the four years 1949, 50, 51 and 53.

An ornamental, bearing bright double or semi-double flowers. Leaf curl susceptibility is moderately low, a rating of 2 being given in a 0 to 5 possible range. Leaf glands are reniform. Trees showed severe delay in foliation in the spring of 1956 following a very mild winter, a rating of 4 and 4 to 5 being given for delay in foliation in a 0 to 5 range.



P. I. 133729
Crimson

Comments of Comparisons Between 135995 and 133729

The two varieties 135995, Russell's Red, and 133729, Crimson, have been considered as probably identical because of striking similarities in flower, fruit, stone and tree. The principal comparisons are outlined as follows:

Similarities

1. The flowers of each are large double or semi-double and bright crimson in color.

2. As may be noted in the previous descriptions the two fruits are very similar.

3. The stones are practically the same in size, shape and character of markings. These seeds are unique in that they are neither corrugated or pitted, the stone surfaces being quite smooth excepting for a few shallow smooth lines. On the basis of the pits alone one would judge that the varieties are either identical or very closely related.

4. The leaves of both varieties are long and narrow. Both have reniform glands.

Differences

1. Trees of Crimson are vigorous in growth, with large luxuriant leaves. Tree growth is spreading, general appearance is much like that of many commercial type peaches. Trees of Russell's Red are much less vigorous, leaves are small, somewhat cupped along the midrib, gray-green in appearance. Tree growth is strictly upright, general appearance is strikingly different from that of surrounding commercial type peaches.

2. Susceptibility to peach leaf curl appeared to be high in 1952 for Russell's Red while it was moderately low for Crimson.^{1/}

3. Russell's Red showed relatively little delay in foliation in the spring of 1956 while Crimson showed severe foliation delay.

It would appear that Russell's Red and Crimson are not identical, but unquestionably are very closely related. General observations of the trees in the field suggest that Russell's Red is more typically "ornamental" in form and appearance, while Crimson is more suggestive of the "conventional, commercial type" peach.

3. DOUBLE PINK

Prunus persica roseo flore pleno

Literature and Miscellaneous Notes

Rehder, Alfred. Manual of Cultivated Trees and Shrubs, 1947. Prunus persica duplex (West.) Rehd. Flowers double, pink. Revue Horticole, 1852 (P. persica flore pleno and flore roseo pleno Hort.) originated before 1636.

P. persica rubro-plena. Schneid. Flowers semi-double, red. Flore des Serres et des Jardins de l'Europe, 1845-80.

Bailey, L.H. Standard Cyclopedia of Horticulture, 1916. There are many ornamental forms of the peach tree: double flowered, white flowered, dark flowered, etc.; these forms are catalogued under such names as Persica

^{1/} Ackerman, W. L. , The Evaluation of Peach Leaf Curl on Foreign and Domestic Peaches and Nectarines. Multilith Publication. Horticultural Crops Research Branch, A.R.S., U.S.D.A., January, 1953.

vulgaris flore albo-plena, flore roseo-plena, flore sanguineo pleno,
representing different colors of double-flowered peach.

Hedrick, U. P. The Peaches of New York. 1917, page 37. Hedrick quotes from Thomas Johnson's improved edition (1633) of John Gerarde's "The Herball or Generall Historie of Plantes," 1595, as follows:
"There is also kept in some of our choice gardens (in England) a kind of Peach which hath a very double and beautifull floure, but it is seldom succeeded by any fruit: they call this Persica flore pleno, the double blossomed Peach."

Catalog of F. Toynbee, Ltd., Croftway Nurseries, Barnham near Bognor Regis, Sussex, England. 1955-56. Prunus persica rosea flore pleno. (Double peach). Rose-pink double flowers. One of the most delightful of smaller garden trees; flowers closely after almond.

Listed by 1 of 25 English nurseries examined 1/12/57.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 141208. P. persica rosea flore pleno. Plants received from T. Hilling & Company, Chebham, Woking, Surrey, England, 1941. Tree has been observed to bear fruit of poor color and quality, but no description available. Time of full bloom: 4/6/49, 4/6/50, 4/7/51, 4/2/52 and 4/4/53. Among approximately 900 peaches and nectarines blossoming at Chico, the average full bloom for the four years 1949, 1950, 1951 and 1953 was 8 days later for P.I. 141208 than for that of the next latest clone on the list. ¹ Clara Meyer, which competes closely with P. I. 141208 for being the latest blossoming peach on the station, was not included on this list. The time of full bloom of Clara Meyer was 4/8/49 and 4/6/50. Flowers are pink, double (rose type), large, showy. Leaf curl susceptibility is very low, no visible signs of leaf curl being evident on either of 2 separately located trees during a widespread epidemic at the Chico Station in 1952. Leaf glands are reniform.

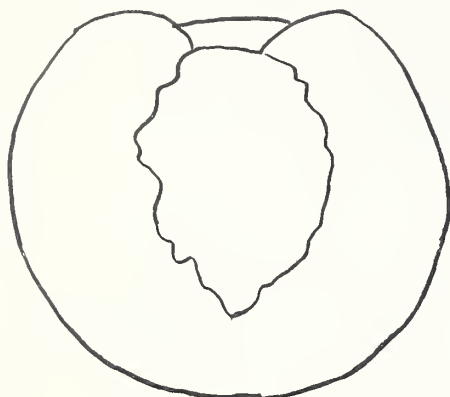
Comments

It would appear that there is a wide difference in the time of blossoming of the clone of P. persica rosea flore pleno described by Toynbee as flowering closely after almond (indicating earliness), and that of the clone at Chico, which is the latest peach to blossom on the station.

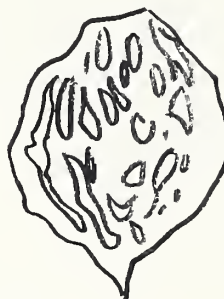
Correspondence with the T. Hilling Co., Ltd., indicates that the clone of P. persica rosea flore pleno they carried in 1941, when P.I. 141208 was introduced, was described as "soft light pink, double-flowered variety.

¹/ Ackerman, W. L., Joley, L.E. and Halsey, D. Blossoming and leafing responses of foreign and domestic peaches and nectarines to temperature. Multilith publication. Horticultural Crops Research Branch, A.R.S., U.S.D.A. November, 1955.

Late April." The Hilling Company no longer grows this variety as they find the Clara Meyer variety to be very similar but better as an ornamental.



P.I.141208
Double Pink



4. GIALLA DI PADOVA

Prunus persica nectarina

Literature and Miscellaneous Notes

Catalog of Fratelli Sgaravatti, Saonara, Padova, Italy. Gialla di Padova. Medium sized, flesh firm, yellow, aromatic, with an apricot-like flavor; quality excellent, ripens in June.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 65977. Gialla di Padova. Plants received from Fratelli Sgaravatti, Saonara, Padova, Italy, January 1926. Date picked at Chico 7/31/39, 7/28/41, 8/11/42 and 8/7/56, with seasons of 7/31-8/12/39, 7/23-8/4/41 and 8/8-23/42. Date ripe 8/8-10/56. The season of Gialla di Padova was 3 days later than Veteran in 1941, 2 days earlier than J. H. Hale in 1942 and 8 days later than Elberta in 1956. Crop in 1939 light, in 1941 very light, in 1942 medium and in 1956 light-medium. Size uniform, medium, average diameter 5.2 cm. in 1939, 5.3 cm. in 1941, 5.8 cm. in 1942 and 6.7 cm. in 1956. Shape uniform, regular, roundish, compressed opposite the suture, diameter unequal, halves unequal. Cavity medium depth and width, regular, flaring. Suture: lips unequal, depth uniform, shallow but distinct length one-half circumference of fruit. Apex roundish. Pistillary point a scar or mucronate. Skin: color lemon-yellow with a trace of green, no blush, appearance dull, medium to thin in thickness, medium toughness, semi-free of the flesh. Flesh color lemon-yellow, no red around the pit, texture medium grained, tender, no stringiness. Juice, slightly dry to moderately juicy. Flavor sub-acid, sprightly, sugar content medium to light, mostly medium, acid and aroma high. Quality fair in 1939, fair to good in 1941, 1942 and 1956. Fruit firm to very firm. Stone free, medium size, oval, plump, pointed, pitted and corrugated, brown in color, suture depressed, winged.

Time of full bloom for Gialla di Padova: 3/25/37, 3/23/38, 3/20/39, 3/20/40, 3/24/42, 4/3/49, 4/6/50, 3/29/51, 3/25/52 and 3/14/53; average date of full bloom for all years is March 25. Time of full bloom for Veteran: 3/25/37, 3/25/38, 3/20/39, 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53 with an

average date of March 21; average for Elberta is March 17, for J. H. Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Gialla di Padova was listed among the latest four clones as based upon the average full bloom of the four years 1949-51 and 1953.

Flowers are pinkish-white, large, round-petaled, showy. Leaf curl susceptibility is low, a rating of 1 being given in a 0 to 5 possible range. Leaf glands are reniform.

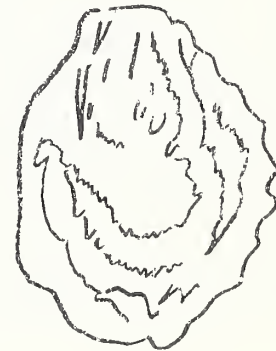
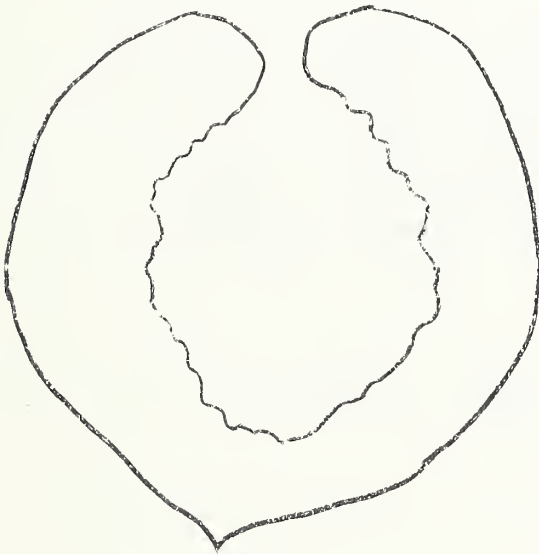
Comments

1939. Rather dry and lacks flavor.

1941. Rather pale yellow, browns a little near pit, rots quickly, not the best flavor.

1942. Skin a little bumpy, small russet areas, many split. Similar to Gold, only later. Possible use in breeding for yellow flesh. Needs some red around the pit.

1956. Has size this year, also firmness, yellow skin and flesh. Distinctly a tart fruit, but good blend of acid, sugar and aroma. Has possibilities for breeding.



P.I. 65977
Gialla di Padova

5. KU CHU'A HUNG

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 101674 to 101676. Ku Chu'a Hung (millet season red peach) numbers 12 to 14. Scions collected by Peter Liu of Peiping, China, obtained near the village of Shangchihtsun, China. A freestone which ripens in August.

P.I. 101674. Ku Chu'a Hung #12. Fruit picked at Chico 8/17/37. Season 8/17-27/37. Date ripe 8/13/51 and 8/27-30/56. The season of 101674 was 17, 4 and 28 days later than Veteran in 1937, 1951 and 1956, respectively.

Crop in 1956 light to medium. Size fairly uniform, average measurements - length 7.2 cm., diameter 7 cm. and weight 174 gms. in 1937; diameter 6.8 to 7.3 cm in 1951. Shape regular, roundish, compressed opposite the suture, halves unequal. Cavity medium depth, wide, regular, flaring. Suture shallow, but distinct. Apex pointed, mucronate. Skin: color greenish creamy-white, blush only a trace or none, medium thickness, tough, semi-free of the flesh, pubescence medium. Flesh: greenish creamy-white, some red around the pit, texture melting. Juice moderate. Flavor sweet, slightly bitter. Sugar medium to high, acid low to medium. Quality fair. Fruit medium firm. Stone free, rather large in size. Kernel bitter.

Time of full bloom: 4/7/38, 3/25/39, 3/23/40, 4/6/49, 3/30/50 and 3/30/51; average date of full bloom for all years is March 30.

Comments

Fruit is considered of no value in itself, may be of possible use as a stock. Fruit has a tendency to crack along suture.

P.I. 101675. Ku Chu'a Hung #13. Fruit ripe at Chico 9/1-5/56. The season of 101675 was 12 days later than that of J. H. Hale in 1956. Crop light. Size fairly uniform, average diameter 8.6 cm. Shape round to roundish-ovate, short beak. Cavity mostly large. Suture shallow to medium. Skin: greenish creamy white, no blush, pubescence medium to medium-heavy. Flesh: white with some green near the skin, light amount of red around the pit, texture medium-coarse grained, stringiness light-medium to medium. Juice very abundant. Sugar content high, acid low, aroma medium. Quality fair. Stone mostly to fully cling, large in size.

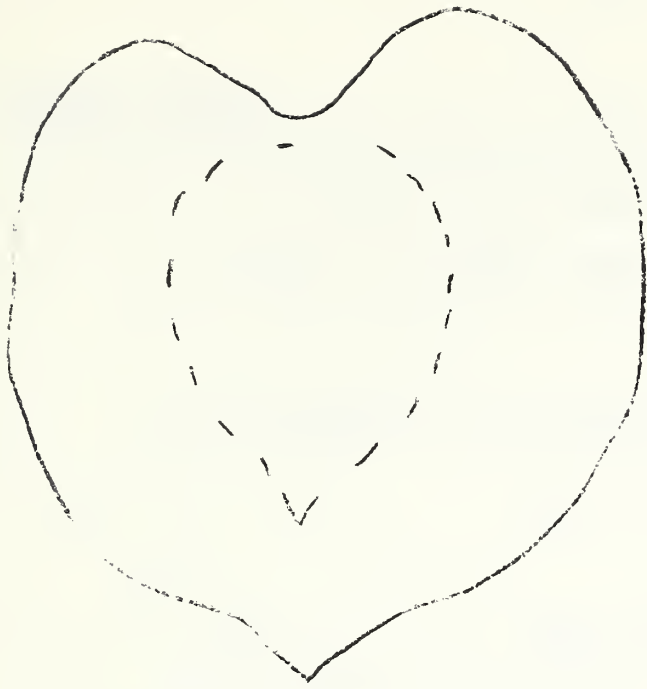
Time of full bloom: 3/28/38, 3/20/39, 3/22/40, 4/8/49, 3/27/50, 3/25/51 and 3/30/52; average date of full bloom for all years is March 27.

Comments

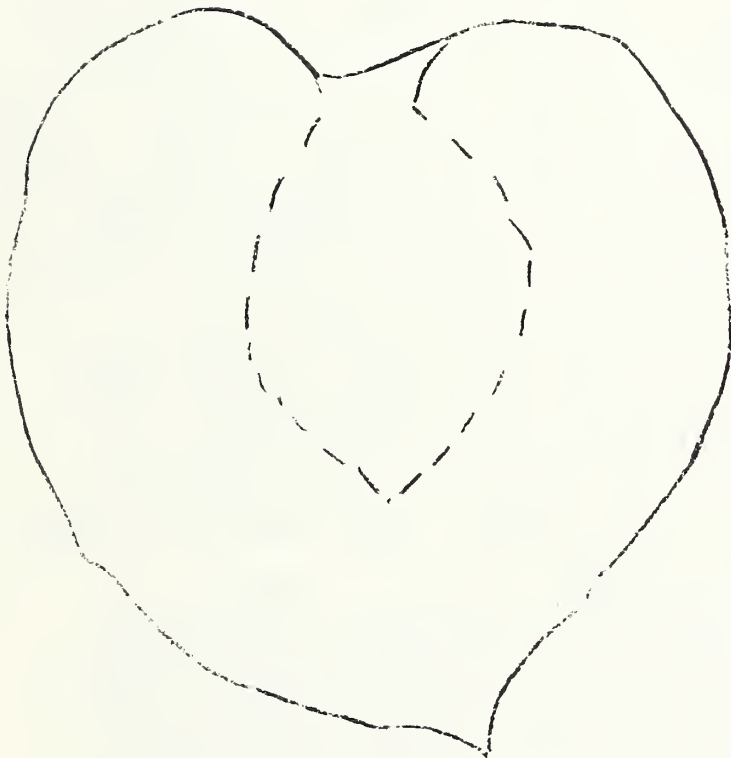
Sweetness, size and mildness of interest.

P.I. 101676. Ku Chu'a Hung #14. Fruit picked at Chico 8/30/37. Season 8/25-9/5/37. Date ripe 9/3-6/56. The season of 101676 was 25 and 34 days later than that of Veteran in 1937 and 1956, respectively; it was 13 days later than J. H. Hale in 1956. Crop light. Size fairly uniform, average measurements, length 6.5 cm., diameter 7.3 cm. and weight 190 gms. Shape regular, compressed along suture, halves equal. Cavity medium depth and width, regular, flaring. Suture shallow, but distinct. Apex roundish, cut by suture. Skin: color greenish-white, lightly blushed where exposed to sun, thick, tough, adherent to flesh, pubescence heavy. Flesh: color creamy-white, medium amount of red around the pit, texture meaty. Juice moderate. Flavor mild, sweet. Quality poor to fair. Stone cling, large in size.

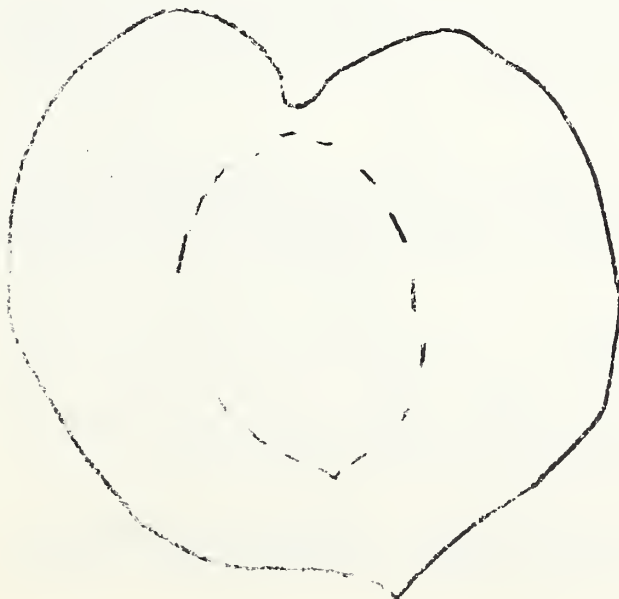
Time of full bloom: 3/30/38, 3/21/39, 3/22/40, 4/8/49, 3/27/50, 3/25/51 and 3/28/52; average date of full bloom for all years is March 27.



P.I. 101674



P.I. 101675



P.I. 101676

6. LUCKENBUSSE 1

Prunus persica

Literature and Miscellaneous Notes

Catalog of Franz Bobeth, Meissen-Dobritz, Saxony, Germany, 1938-39. Luckenbusser 1 ripens first of August; large and very well colored, very fruitful.

Catalog of Schonemann, Germany, 1937-38. The variety Luckenbusser is listed but it is not designated whether Luckenbusser 1 or Luckenbusser 2.

Listed by 2 of 42 German catalogs examined 2/10/42.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 132743 Luckenbusser 1. Plants received from Franz Bobeth, Meissen-Dobritz, Saxony, Germany, in 1939. Date ripe in Chico 8/8/51 and 7/25/56. Luckenbusser 1 was 10 days earlier than J. H. Hale in 1951 and 7 days earlier than Elberta in 1956. Heavy to very heavy crop in 1951, medium crop in 1956. Size rather uniform, length 4.3 to 4.8 c m., diameter 4.8 to 5.4 cm. Shape uniform, roundish, tending toward oblate. Cavity small, medium, regular, flaring. Suture shallow, some deep cutting at stem end. Skin: color creamy-white with a trace of green, lightly blushed, pubescence light, appearance bright. Flesh: color white with a trace of green, light in shade, light amount of red around the pit, texture medium grained, some slight stringiness. Juice medium, tending toward slight dryness. Sugar low, acid low to medium, some bitterness. Quality poor. Fruit soft. Stone wholly free, small to medium in size. Kernel very bitter. Fruit rating poor.

Description of fruits picked on 7/22/40 from the original tree at the Plant Introduction Garden, Glenn Dale, Maryland. Fruits small, white flesh, red below skin, but not at pit, grainy, soft, skin well colored.

Time of full bloom for Luckenbusser 1: 4/4/49, 3/27/50, 3/28/51, 3/22/52 and 3/16/53; average date of full bloom for all years is March 26. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53 with an average date of March 20; average for Elberta is March 17, and for J.H.Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico Luckenbusser 1 was listed among the 21 latest clones as based upon the average full bloom of the four years 1949-51 and 1953.

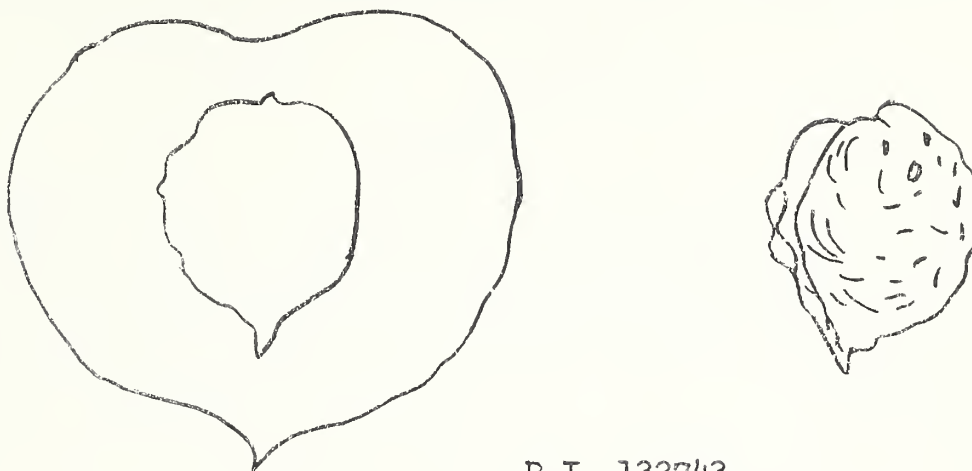
Flowers are pink, large, round petaled and showy. Leaf curl susceptibility is low, a rating of 1 being given in a 0 to 5 possible range. Leaf glands reniform. There was no apparent delay in foliation in the spring of 1956 following a very mild winter.

Comments

1951. Very small, white-fleshed peach. Some doubt that these trees are the variety.

1956. The fruits of both E 19/37 and 38 are the same. Fruit descriptions

at Chico compare closely with that made from the original introduced tree at Glenn Dale, Maryland. Considerable doubt that this is the variety Luckenbusser 1.



P.I. 132743
Luckenbusser 1

7. MAO TAO SEEDLING

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, Calif.

P. I. 106948. Seeds purchased through Peter Liu, Peiping, China, in 1934, by P. H. Dorsett, agricultural explorer. Explorer's description: Mao Tao (hairy peach) obtained from the villages around Feicheng, where the seedlings are used as stocks for cultivated varieties of peaches.

P. I. 106948 (F 3-114). Mao Tao seedling. Fruit picked at Chico 8/12/39 and 7/14/41 with seasons of 8/8-15/39 and 7/10-24/41. Date ripe 8/2/51 and 8/5-7/56. The season of 106948 (F 3-114) was 2 days earlier and 1 day later than Halehaven in 1941 and 1942, respectively. Crop in 1941 light, in 1951 very heavy. Fruit drops readily. Size uniform, small; average measurements - length 4.5 cm., diameter 4.8 cm. and weight 60 gms. Shape uniform, regular, roundish tending toward oblate, no compression along or opposite suture, halves unequal. Cavity medium depth and width, regular, moderately abrupt. Suture shallow, but distinct. Apex roundish. Pistillary point mostly mucronate. Skin: color greenish creamy-white, light blushed from 10 to 25 per cent of surface, appearance dull, medium thickness, tender to medium toughness, somewhat adherent to flesh, pubescence short and light, dots small, fairly numerous. Flesh: color creamy-white, texture medium to fine grained, tender, slightly stringy, melting. Juice moderate to abundant. Flavor sweet, mild. Sugar low to medium, acid very low to low. Quality poor to fair in 1939, poor in 1941 and 1951. Fruit very soft to soft. Stone free, small, oval, plump, pointed, surface pitted, corrugated, brown in color.

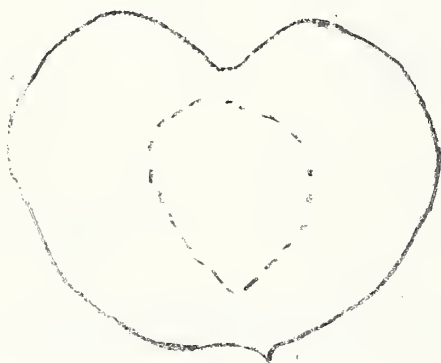
Time of full bloom for Mao Tao seedling (F 3-114): 3/23/40, 4/6/49, 3/28/50, 3/24/51 and 3/15/53; average date of full bloom for all years is March 25.

Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51 and 3/8/53 with an average date of March 20: average for Elberta is March 17, for J.H.Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, this Mao Tao seedling was listed among the latest 30 clones as based upon the average full bloom of the four years 1949-51 and 1953.

Flowers are pink, large, round-petaled, showy. Leaf glands are reniform.

Comments

1941. Fruit of little value in itself, possible rootstock. Tree very vigorous, very early producer (had a crop the second year). Seeds small, easily collected, giving good germination, produce vigorous healthy uniform seedlings, upright in growth, smooth barked. Has proven under test to be susceptible to nematode,^{1/} but otherwise has the appearance of a good rootstock.



P.I.106948
MAO TAO
Seedling -



8. MAO TAO SEEDLING

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P. I. 240928 A seedling selection of the Mao Tao (hairy peach), originally received as P. I. 107838. Seeds presented by Peter Liu, Peiping, China, in 1935. Collected by Wen Ying Tang in the vicinity of Feicheng where it is used as a rootstock. It was sent to Chico to be tested for that purpose.

Fruit picked at Chico 8/11/41. Season, 8/11-23/41 and 8/27-9/10/42. The season of P.I. 240928 was 4 days later than J. H. Hale in 1941, but 15 days later in 1942. Crop light in 1941, medium-heavy in 1942. Size uniform, medium, average measurements; length 5.3 cm., diameter 5.2 cm. and weight 88 gms. in 1941; average weight in 1942 was 51 gms. Shape uniform, regular, roundish. Skin: color greenish creamy-white, lightly blushed or none, appearance dull, medium thickness and toughness, semi-free of the flesh,

^{1/} Long, J. C. and Whitehouse, W.E. Variations in root-knot nematode infection of various lines of peach progenies at Chico, California. Proc. Amer. Soc. Hort. Sci. 43: 119-123. 1943.

pubescence light-medium. Flesh: color creamy-white, trace of red around the pit, texture medium grained, tender, melting. Juice moderate to abundant, colorless. Flavor mildly sub-acid. Quality poor. Stone free.

Time of full bloom: 3/19/48, 3/24/50, 3/24/51 and 3/12/53; average date of full bloom for all years is March 20.

Comments

No value for fruit.

9. MAC TAO SEEDLING

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 240929. Seedling of Mao Tao. Fruit picked at Chico 8/11/41 and 8/31/42 with seasons of 8/9-19/41 and 8/25-9/2/42. Date ripe 8/10/54. The season of 240929 was 1 day later than that of J. H. Hale in 1941, but 10 days later in 1942. Crop light in 1941, 1942 and 1954. Size uniform, small, average measurements in 1941 were: length 4.1 cm., diameter 4.7 cm., weight 54 gms.; average weight in 1942 was 56 gms.; average diameter in 1954 was 5.2 cm. Shape uniform, regular, ovate, compressed along suture. Cavity medium width and depth. Suture changing from shallow to deep with a predominance of the latter. Skin: color greenish-yellow, light blush or none, appearance dull to bright, medium thickness and toughness, free of the flesh, pubescence light to medium. Flesh: color yellow, either light or no redness around the pit, texture fine grained, tender, stringiness slight or none, melting. Juice moderate to abundant, pale yellow in color. Sugar content medium, acid low. Flavor somewhat insipid, subacid. Quality poor to fair. Fruit medium firmness. Stone free. Kernel bitter.

Time of full bloom: 3/19/48, 4/9/49; 3/22/50, 3/26/51 and 3/14/53; average date of full bloom for all years is March 24.

Comments

1941. No value for fruit.

1954. Sides unequal, deep cut suture, odd flavor, not wholly typical of peach - might be described more like an apricot in flavor. Poor tree. Save because of odd flavor and fact that it is the only yellow-fleshed fruit in this seedling group.

10. MAO TAO SEEDLING

P.I. 240930. Seedling of Mao Tao. Fruit picked at Chico 8/11/41 and 8/31/42 with seasons of 8/6-18/41 and 8/18-9/3/42. Date ripe 8/10-14/54 and 8/5-7/56. The season of P.I. 240930 was the same as that of J. H. Hale in 1941 but 8 days later in 1942. It was 5 days later than Elberta in 1956. Crop light in 1941, 1942, 1954 and 1956. Size variable, small to medium, average measurements in 1941 were: length 5.2 cm., diameter 5.4 cm., weight 93 gms.; average weight in 1942 was 125 gms.; average diameter for 1954 was 6 cm. Shape uniform, roundish ovate, somewhat beaked.

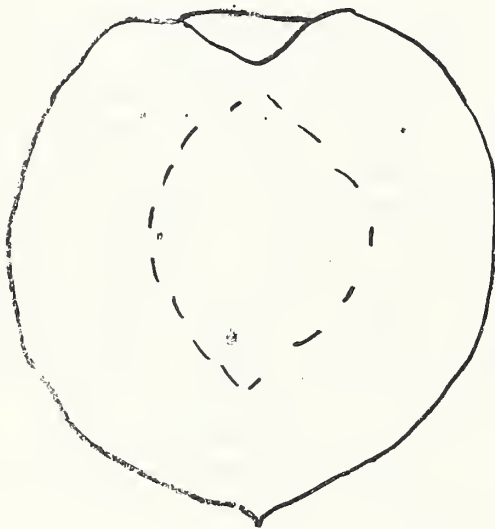
Skin: color greenish creamy-white, no blush, appearance dull, thickness medium, tender, free of the flesh, pubescence medium to heavy. Flesh: color white, some darkening around pit, texture fine-grained, tender, stringiness slight or none, melting. Juice moderate, colorless. Sugar content low to medium, acid medium to high. Flavor tart. Quality poor. Fruit medium firmness. Stone free. Kernel bitter.

Time of full bloom: 3/19/48, 4/8/49, 3/25/50, 3/28/51, 3/28/52 and 3/15/53; average date of full bloom for all years is March 26.

Comments

1941. No value for fruit. Perishable.

1954. Slight cracking along suture, acid has long after-taste.



P. I. 240930
MAO TAO SEEDLING

11. MAO TAO SEEDLING

P. I. 240931. Seedling of Mao Tao. Fruit picked at Chico 8/11/41. Season: 8/7-16/41, 8/15-26/42 and 9/5-17/54. The season of P.I. 240931 was 1 day earlier than J. H. Hale in 1941 but 2 days later in 1942. Crop very light in 1941, light in 1942 and 1954. Size uniform, average measurements in 1941: length 4.8 cm., diameter 5.6 cm., weight 99 gms.; average diameter in 1954 was 7.3 cm. Shape uniform, regular, round-oblate, short to medium beak. Cavity medium depth and width. Suture from very shallow to medium depth, mostly shallow. Skin: color creamy-white with a trace of green, no blush, appearance dull, medium thickness and toughness, adherent to the flesh, pubescence light to medium. Flesh: color creamy-white with a trace of green, no red or brown color around the pit, texture medium-fine to fine grained. Juice very abundant. Sugar content from very poor to poor. Fruit moderately firm to firm. Stone cling. Kernel, medium bitterness.

Time of full bloom: 3/12/48, 3/22/50, 3/24/51 and 3/12/53; average date of full bloom for all years is March 18.

Comments

1954. No value for fruit in itself. Breakdown in flesh before fully ripe.

Miscellaneous Notes on Seedling Selections of P.I. 107838

Blossoming and leafing are moderately late. Among approximately 900 peaches and nectarines blossoming at Chico, P.I. 240930 was listed among the 21 latest clones, P.I. 240929 was among the 30 latest clones and P.I. 240928 and P.I. 240931 among the 34 latest clones, as based upon the average full bloom of the four years 1949, 1950, 1951 and 1953.

Flowers of all four seedlings are pink, large, round-petaled and showy. Leaf glands of P.I. 240928 and P.I. 240931 are reniform while those of P.I. 240929 and P.I. 240930 are both reniform and globose.

In 1938 observations for rootstock possibilities were made by J. C. Long and E. L. Mitchell ^{1/} on the original seedlings of P.I. 107828. A group of 510 two-year-old seedlings were examined, resulting in:

200 good vigorous seedlings
180 fair seedlings
130 either very small or making poor growth

Roots were fibrous and generally clean. Over one-half of the seedlings either had or were showing signs of suckering. Four showed evidence of crown gall. No nematode. During the 1937 growing season these seedlings showed more peach leaf curl than any other Amygdalus on the station. On the basis of these observations it was concluded that this peach should not be recommended as a rootstock.

Weinberger, et al ^{2/} found that in a group of 107838 seedlings, the three out of seven were free of root knot nematode under severe test conditions. Long and Whitehouse, ^{3/} however, working with 354 seedlings of P.I. 107838 found from 43 to 90 per cent infection with root knot nematode.

12. MILTON

Prunus persica nectarina

Literature and Miscellaneous Notes

Catalog of John Jefferies & Sons, Ltd., Cirencester, England, 1956-57.
Milton-nectarine.

Listed by 1 of 25 English catalogs examined 1/12/57.

^{1/} From Notes recorded at the Chico Plant Garden, February 25, 1938.

^{2/} Weinberger, J. H., Marth, P. C. and Scott, D.H. "Inheritance Studies of Root Knot Nematode Resistance in Certain Peach Varieties." Proc. Amer. Soc. Hort. Sci. 42:321-325. 1943.

^{3/} Long, J. C. and Whitehouse, W.E. "Variations in Root Knot Nematode Infection of Various Lines of Peach Progenies at Chico, California." Proc. Amer. Soc. Hort. Sci. 43:119-123. 1943.

Evaluation Data
U. S. Plant Introduction Garden, Chico, California

P.I. 131431. Milton. Plants received from George Bunyard & Co., Ltd., Maidstone, Kent, England, January 1939. Date ripe at Chico 8/1/56. Milton was ripe on the same days as Elberta in 1956. Size mostly 4 to 5 cm. in diameter. Length medium to long. Shape oval, very slightly compressed. Cavity small-medium. Suture a mere line, very shallow, or medium, mostly very shallow. Skin: color white to a creamy pale-yellow with a trace of green, medium-heavy blush of dark red appearance, somewhat dull. Flesh: color creamy pale-yellow, medium shade, medium-heavy amount of red around the pit, texture medium to fine grained, mostly medium-fine, stringiness either none or very light. Juice moderate. Sugar content medium to high, mostly medium, acid medium to high, mostly high, aroma low. Fruit soft to medium firmness. Quality poor to fair. Stone free, medium size. Kernel some bitterness.

Time of full bloom for Milton: 4/2/49, 3/27/50, 3/28/51, 3/21/52 and 3/20/53: average date of full bloom for all years is March 26. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53, with an average date of March 20; average for Elberta is March 17 and for J. H. Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Milton was listed among the 21 latest clones as based upon the average full bloom of the four years 1949, 1950, 1951 and 1953.

Flowers are reddish-pink, large, round-petaled, showy. Leaf curl susceptibility is moderately low, a rating of 2 being given in a 0 to 5 possible range. Leaf glands are globose. Trees showed a slight amount of delay in foliation in the spring of 1956 following a very mild winter, a rating of 1 to 2 being given for delay in foliation in a 0 to 5 range.

Comments

Poor size, rather dull but dark red, some bitterness, considerable red around pit, fine textured.

13. PINEAPPLE

Prunus persica nectarina

Literature and Miscellaneous Notes

Catalog of The Barnham Nurseries Ltd., Barnham, near Bognor Regis, Sussex, England, 1954-55. Pineapple (nectarine) large, deep orange, flushed crimson. Early September.

Catalog of Hillier & Sons, Winchester, England, 1954-55. Pineapple (nectarine). Large, orange streaked with deep red; superb flavor. Beginning of September.

Catalog of George Jackson & Sons, Woking, Surrey, England, 1954-55. Pineapple (nectarine). Very fine color, juicy and rich flavor. Early September.

Catalog of Laxton Bros., Bedford, England. Pineapple (nect). September. The richest yellow-fleshed kind; fine color and flavor.

Catalog of Pennell & Sons, Ltd., Lincoln, England, 1954-55. Pineapple (nect). Large, deep orange and crimson, rich flavor. End of September.

Catalog of L.R.Russell, Ltd., Richmond Nurseries, Windleham, Surrey, England, 1954-55. Pineapple (Nect). Orange flesh, delicious, melting fruit. Early Sept.

Catalog of Sale & Son, Wokingham, Berks, England, 1954-55. Pineapple (nect). Large, deep orange fruits with rich crimson cheeks. Delicious flavor. Requires a warm position when grown outdcors. Early September.

Catalog of Watson's Nurseries, Ltd., Killiney Co., Dublin Ireland, 1955-56. Pineapple (nect). Deep orange and crimson, very rich flavor; rather tender outdoors. Early September.

Listed by 19 of 25 English catalogs examined 1/12/57.

Listed by 1 of 1 Irish catalog examined 1/12/57.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

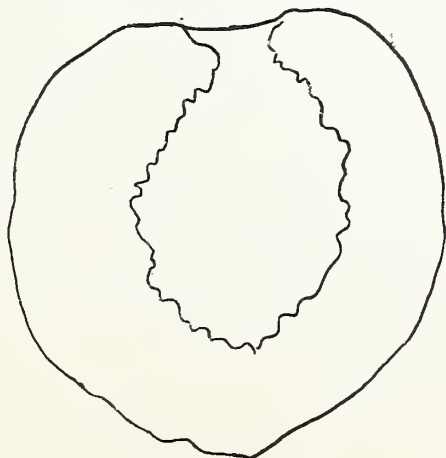
P.I. 131209. Pineapple. Plants received from J. Cheal and Sons, Ltd., Lowfield Nurseries, Crowley, Sussex, England, December 1938. Date ripe at Chico 8/3/56. The season of Pineapple was 2 days later than Elberta in 1956. Crop medium. Size: diameter 4.6 to 5.1 cm.; length medium-long. Shape highly irregular and variable, ranging from roundish to ovate, to conical, to truncate, most are somewhat compressed. Cavity medium to medium-large, flaring. Suture medium, but may be deep or split at stem. Skin: color orange-yellow, medium amount of blush, appearance mostly dull, some rather bumpy and rough. Flesh: color golden-yellow to orange-yellow, medium amount of red around the pit, texture medium grained but with some toughness, stringiness either none or very light. Juice somewhat dry to medium. Sugar content medium, acid low to medium, aroma medium to mostly high. Quality good. Fruit firmness medium to firm. Stone free, medium size, kernel bitter.

Time of full bloom for Pineapple: 4/1/49, 3/25/50, 3/27/51 and 3/20/53; average date of full bloom for all years is March 26. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51 and 3/8/57, with an average date of March 20; average for Elberta is March 17 and for J.H.Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Pineapple was listed among the 30 latest clones as based upon the average full bloom of the four years listed above.

Flowers are pink, large, round-petaled, showy. Leaf curl susceptibility is very low, a rating of 0 being given to one tree indicating no visible signs of leaf curl observed, while a 0 to 1 rating was given the other tree indicating an inconclusive trace of leaf curl. Leaf glands are globose.

Comments

Needs size, but has good color and flavor.



P. I. 131209
Pineapple

14. PI TAO

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. 62602. Pi Tao. Scions collected from the Fa Hua Ssu temple near Haitzu, China, in 1925, by P. H. Dorsett, agricultural explorer. Explorer's description: Pi Tao (flowering peach). The twigs of blossoms, which fade from pink to white and then turn red, are sold here. The fruits, about 1 and 1/2 inches in diameter and resembling apricots in shape, are freestone and ripen in September, becoming pink.

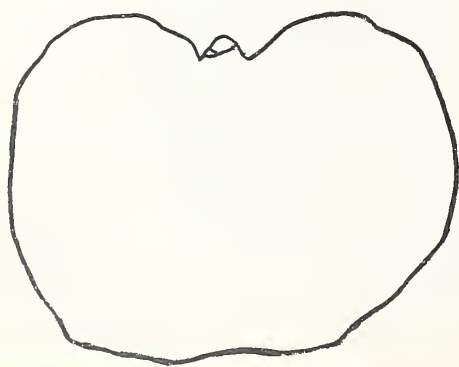
Fruit picked at Chico 9/19/42, season 9/12-26/42. Pi Tao was 32 days later than J. H. Hale, 24 days later than Rio Oso Gem and 7 days later than Stamford in 1942. Crop light. Size variable, small; length 4.4 cm., diameter 4.8 cm. and weight 66 gms. Shape uniform, irregular, truncate tending toward oblate, compressed opposite suture, diameters and halves unequal. Cavity medium depth, wide, irregular, flaring. Suture: lips unequal, depth changing, mostly shallow but distinct, length 5/8 to 3/4 circumference of fruit. Apex flattened, depressed. Pistillary point mostly a scar. Skin: color greenish-creamy-white, mottled and blushed up to 20 per cent of surface with light red, medium thickness and toughness, free of flesh, pubescence light. Flesh: color creamy-white, moderate amount of red around pit, texture medium grained, tender, melting. Juice abundant, pink in color. Flavor bitter, tart. Quality poor to fair. Some doubling of fruits. Stone free, medium size, roundish, plump, blunt, surface pitted, corrugated, reddish brown in color; suture depressed and winged.

Time of full bloom for Pi Tao: 4/2/42, 4/5/49, 3/27/50, 3/28/51, 3/23/52 and 3/11/53: average date of full bloom for all years is March 26. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53 with an average date of March 20; average for Elberta is March 17 and for J. H. Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Pi Tao was listed among the latest 30 clones as based upon the average full bloom of the four years 1949, 1950, 1951 and 1953.

Flowers are attractive, pink and double. Leaf curl susceptibility is high, a rating of 4 being given in a 0 to 5 possible range. Leaf glands are reniform. Trees showed rather severe delayed foliation in the spring of 1956 following a very mild winter, a rating of 3 to 4 being given for delay in foliation in a 0 to 5 range.

Comments

Fruit is too small and tart to be of value for itself; possible interest in breeding or as an ornamental.



P. I. 62602
Pi Tao

15. ROWE'S CHAMPION

Prunus persica

Literature and Miscellaneous Notes

Catalog of J. Brunning and Sons, Australia. 1939. Rowe's Champion - medium season. Large, freestone, white, good color, ripens end of January, (end of July for northern hemisphere).

Catalog of Rosen and Son, Australia, 1939. Rowe's Champion - large, bright red, white flesh, ripens mid-January.

Catalog of Swane Bros., Australia, 1940. Rowe's Champion - large, white-fleshed, freestone, heavy and constant cropper, ripens just before Elberta.

Listed by 3 of 7 Australian catalogs examined.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P. I. 105851 Rowe's Champion. Plants received from L. P. Rosen and Son, Carlingford, New South Wales, Australia, in 1934. Fruit picked at Chico 8/15/38, 7/25/39 and 7/28/41 with seasons of 8/12-22/38, 7/23-8/6/39 and 7/28-8/11/41. Rowe's Champion was 23, 21 and 10 days later than Veteran in 1938, 1939 and 1941, respectively. Normal crop all three years. Size uniform, medium; average length, diameter and weight were 7 cm., 7.3 cm. and 164 gms. in 1938; 6.5 cm., 6.3 cm. and 137 gms. in 1939; and 7 cm., 6.9 cm. and 174 gms. in 1941. Shape uniform, regular, roundish, tending toward ovate, compressed opposite suture, diameters and halves unequal. Cavity, medium depth and width, regular and abrupt. Suture: lips unequal, depth uniform and shallow, length $\frac{5}{8}$ the circumference of fruit. Apex roundish, depressed along suture. Pistillary point mostly mucronate, both straight- and curved. Skin: color greenish creamy-white, blushed 20 to 70 per cent of surface with pink to dark red, medium thickness and toughness, semi-free of the flesh, pubescence light, dots inconspicuous. Flesh: color greenish creamy-white, moderate to heavy amount of red around pit, texture medium grained, tender, melting. Juice abundant, light pink in color. Flavor sub-acid, tart. Quality poor to fair. Stone free, medium size, oval, plump, pointed, surface pitted, corrugated, brown but heavily stained with red, suture winged.

Time of full bloom for Rowe's Champion: 4/2/42, 4/6/49, 3/27/50, 3/31/51, 3/26/52 and 3/19/53; average date of full bloom for all years is March 29. Time of full bloom for Veteran: 3/28/49, 3/20/50, 3/24/51, 3/21/52 and 3/8/53 with an average date of March 20; average for Elberta is March 17, and for J. H. Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Rowe's Champion was listed among the 4 latest clones as based upon the average full bloom of the four years, 1949, 1950, 1951 and 1953.

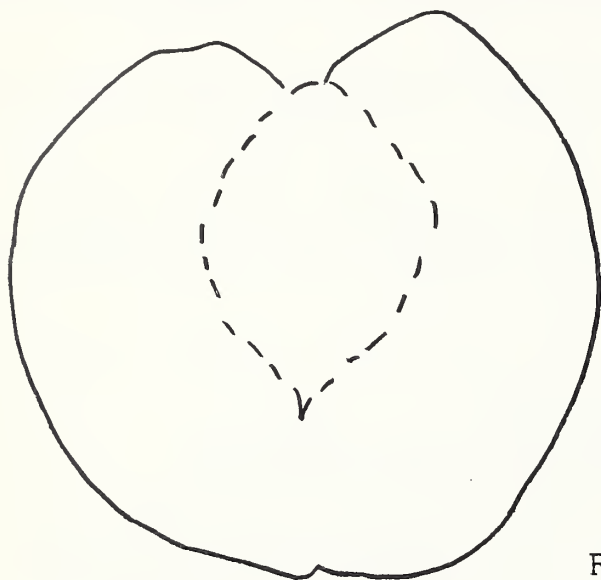
Flowers are pink, large, round-petaled and showy. Leaf curl susceptibility is low, a rating of 1 being given in a 0 to 5 possible range. Leaf glands are reniform. Trees showed severe delayed foliation in the spring of 1956, following a very mild winter, a rating of 4 to 5 being given for delay in foliation in a 0 to 5 range.

Comments

1938. Fruit is not of much value.

1939. Doubtful value, perishable, only fair quality, too much red in flesh.

1941. Doubtful value, poor color and quality.



P. I. 105851
Rowe's Champion

16. RUSSELL'S RED

Prunus persica

Literature and Miscellaneous Notes

Catalog of Everton Nurseries, Ltd., Everton near Lymington, Hants, England, 1955. Russell's Red - Double Red. A weak grower and liable to succumb to "Peach Leaf Curl."

Catalog of Hillier & Sons, West Hill Nursery, Winchester, England, 1954-55. Russell's Red - Ornamental, double, crimson.

Catalog of R. C. Notcutt, Ltd., Woodbridge, Suffolk, England, 1955. Russell's Red - Ornamental, double bright crimson. April.

Catalog of Pennell & Sons, Ltd., Lincoln, England, 1954-55. Russell's Red - Ornamental, brilliant, carmine.

Catalog of Thomas Rivers & Sons, Ltd., Sawbridgeworth, Herts, England, 1954-55. Russell's Red - Double, red peach. April.

Catalog of L. R. Russell, Ltd., Richmond Nurseries, Windleham, Surrey, England, 1954-55. Russell's Red - Ornamental. Flowers large, semi-double, bright carmine-red, flattish when fully open.

Catalog of Sale & Son, Ltd., Folly Court, Wokingham, Berks, England, 1954-55. Russell's Red - Rich crimson, semi-double.

Listed by 2 of 13 English catalogs examined in 1940 and
by 7 of 25 English catalogs examined 1/12/57.

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

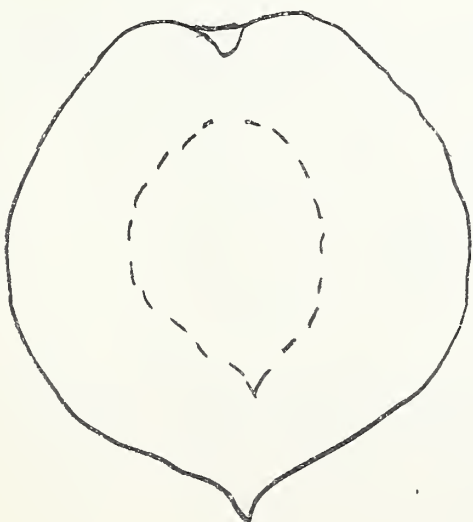
P. I. 135995. Russell's Red. An ornamental variety. Trees received from T. Hilling and Co., Chobham, Woking, Surrey, England, on February 16, 1940. Russell's Red was also obtained as introduction 136647 from Thompson and Morgan, Ispwick, England, on April 20, 1940, and again as P.I. 140360 from Thompson and Morgan on April 26, 1941. The original introduction, P.I. 135995, is the only one presently held at the Chico Plant Introduction Garden. Date ripe at Chico 8/12/51 and 8/12-14/56. Russell's Red was 8 and 12 days later than Elberta during the 1951 and 1956 seasons, respectively. Crop light in 1951 and very light in 1956. Size 4.5 to 5.4 cm. in diameter. Shape long-oval to somewhat conical, short to long beak at apex. Skin: color greenish creamy-white, blushed 5 to 10 per cent of surface, pubescence medium-light. Flesh: color white, texture medium grained. Sugar content medium-light, acid medium. Quality poor. Fruit soft to medium firm. Stone semi-cling. Kernel bitterness medium to heavy. Fruit rating very poor.

Time of full bloom for Russell's Red: 4/5/49, 3/25/50, 3/26/51 and 3/19/53; average date of full bloom for all years is March 27. Time of full bloom of Veteran: 3/28/49, 3/20/50, 3/24/51 and 3/8/53 with an average date of March 20; average date for Elberta is March 17 and for J. H. Hale is March 19. Among approximately 900 peaches and nectarines blossoming at Chico, Russell's Red was listed among the 21 latest clones as based upon the average full bloom of the four years listed above.

An ornamental bearing very large, bright, rose colored flowers, double or semi-double. "Leaf curl" susceptibility is high, a rating of 4 being given in a 0 to 5 possible range. Leaf glands are reniform. Trees showed relatively little delay in foliation in the spring of 1956 following a very mild winter, a rating of 1 and 1 to 2 being given for delay in foliation in a 0 to 5 range.

Comments

P. I. 135995 checks rather closely with the catalog descriptions, especially with that of the Everton Nurseries, which lists it as a weak grower and highly susceptible to "Peach Leaf Curl." Russell's Red is thought to be the same as 133729, Crimson (See comments under the latter).



P. I. 135995
Russell's Red -

TA TAO OR FEI

Prunus persica

Evaluation Data

U. S. Plant Introduction Garden, Chico, California

P.I. Nos. 101663 to 101669. Ta Tao or Fei peach numbers 1, 2, 3, 5, 6 and 7. Scions collected by Peter Lui of Peiping, China, obtained in 1933 from the village of Shangchihtsun, west of Feicheng, Shantung China.

17. TA TAO OR FEI #1

P.I. 101663. Ta Tao or Fei #1. Date ripe at Chico 9/4-7/56. The season of P.I. 101663 was 14 days later than that of J. H. Hale in 1956. Crop light. Size uniform, average diameter 7.6 cm. Shape roundish ovate, short to medium beak. Cavity medium-large, flaring. Suture medium depth. Skin: color greenish creamy-white, no blush, pubescence medium-heavy. Flesh: white with a trace of green, medium amount of red around the pit, texture medium to medium-fine grained, rubbery, tough, some stringiness. Juice, dry. Sugar content very low to low acid very low, considerable bitterness, medium amount of undesirable aroma. Quality very poor. Fruit firm. Stone fully cling, large in size. Kernel bitterness very pronounced.

Time of full bloom: 3/21/39, 3/24/40, 4/2/42, 3/31/49, 3/25/50 and 3/25/51; average date for full bloom for all years is March 27.

Comments

Fruit has size but no quality. Very low sugar and acid, bitterness and other strong flavor present.

18. TA TAO OR FEI #2

P.I. 101664. Ta Tao or Fei #2. Date ripe at Chico 9/2-6/56. The season of P.I. 101664 was 13 days later than that of J. H. Hale in 1956. Crop light. Size range from 7.3 to 8.6 cm. in diameter. Shape round to round-cordate, slight compression opposite suture, medium beak. Cavity medium-large, flaring. Suture medium depth. Skin: color greenish creamy-white, no blush, pubescence medium-heavy. Flesh: white with a slight amount of green, light to medium amount of red around the pit, texture medium-grained, tough, stringiness very light. Juice very abundant. Sugar content varies from low to very high, averaging high, acid very low to low, aroma medium to high. Quality fair. Fruit firm. Stone mostly- to fully cling, large in size. Kernel bitterness medium.

Time of full bloom: 3/22/39, 3/24/40, 4/6/49, 3/27/50, 3/25/51 and 3/30/52; average date of full bloom for all years is March 28.

Comments

Variable sweetness from low to highest in this group. Some bitter tang. Tendency for kernel abortion.

19. TA TAO OR FEI #3

Prunus persica

P.I. 101665. Ta Tao or Fei #3. Date ripe at Chico 9/2-6/56. The season of P.I. 101665 was 13 days later than that of J. H. Hale in 1956. Crop light. Size very large, average diameter 8.3 cm. Shape round to round-ovate, medium to long beak. Cavity medium-large, flaring. Suture mostly medium to deep. Skin: color creamy-white with a heavy amount of green, no blush, pubescence medium to medium-heavy. Flesh: greenish-white, medium to medium-heavy amount of red around the pit, texture medium grained, rubbery, stringiness light to medium. Juice very abundant. Sugar content medium, acid low, medium aroma of a peculiar quality. Quality poor. Fruit firm to very firm. Stone fully cling, large to very large in size.

Time of full bloom: 3/30/38, 3/22/39, 3/23/40, 4/8/49, 3/27/50, 3/25/51, 3/27/52; average date of full bloom for all years is March 28.

20. TA TAO or FEI #5.

P.I. 101667. Ta Tao or Fei #5. Date ripe at Chico 9/4-7/56. The season of P.I. 101667 was 14 days later than that of J. H. Hale in 1956. Crop light. Size, average diameter 8.6 cm. Shape round to round-ovate, slight compression opposite sutures, short to medium beak. Cavity medium-large, flaring. Suture medium depth. Skin: color creamy-white with very heavy green, no blush, pubescence medium-heavy. Flesh: white with a slight amount of green, light to medium amount of red around the pit, texture medium to medium-coarse grained, tough, stringiness medium. Juice medium to abundant. Sugar content high, acid very low, aroma low to medium. Quality fair. Fruit firm to very firm. Stone fully cling, large to very large in size. Kernel bitterness heavy.

Time of full bloom: 3/28/38, 3/22/39, 3/22/40, 4/8/49, 3/27/50, 3/25/51 and 3/31/52; average date of full bloom for all years is March 28.

Comments

High sugar, large size of interest. Kernels tend to be aborted.

21. TA TAO or FEI #6.

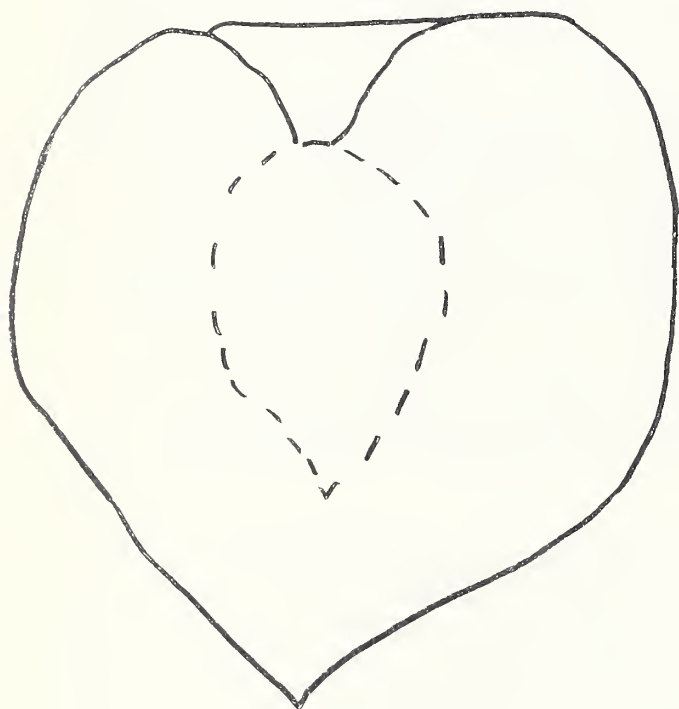
P.I. 101668. Ta Tao or Fei #6. Fruit picked at Chico 9/8/42. Season 9/5-17/42. The season of 101668 was 24 days later than that of J. H. Hale in 1942. Crop light. Size variable, large, average measurements, - length 7.6 cm., diameter 8.2 cm. and weight 271 gms. Shape uniform, regular, roundish, compressed along suture, diameters and halves unequal. Cavity medium depth and width, regular, flaring. Suture, lips slightly unequal, depth medium, length over 1/2 circumference of fruit. Apex roundish. Pistillary point mucronate. Skin: color greenish-white, appearance dull, no blush, thick, tough, adherent to flesh, pubescence medium light. Flesh: color white, light amount of red around pit, texture coarse-grained, tough. Juice abundant and colorless. Flavor sweet. Quality fair. Stone fully cling, medium in size.

Time of full bloom: 4/3/38, 3/23/39, 3/25/40, 4/7/49, 3/27/50, 3/25/51, 3/31/52 and 3/14/53; average date of full bloom for all years is March 27.

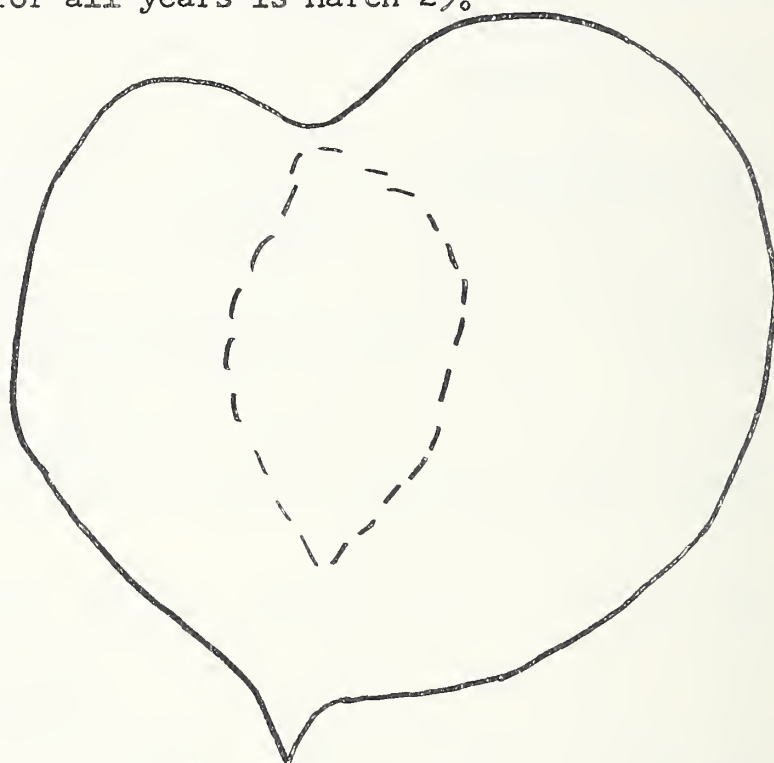
22. TA TAO or FEI #7

P.I. 101669. Ta Tao or Fei #7. Fruit picked at Chico 8/24/37. Season 8/24-9/3/37. Date ripe 9/1-4/56. The season of 101669 was 24 days later than that of Veteran in 1937 and it was 12 days later than J. H. Hale in 1956. Crop light. Size, fairly uniform, large, average measurements - length 7.6 cm., diameter 7.5 cm. and weight 236 gms. Shape regular, roundish, compressed along the suture, halves mostly equal. Cavity deep, wide and abrupt. Suture shallow, but distinct. Apex pointed. Skin: color greenish-white, thick, tough, adherent to flesh, pubescence medium to heavy. Flesh: greenish-white, medium amount of red around the pit, texture meaty. Flavor sweet. Quality poor. Stone fully cling, rather large size.

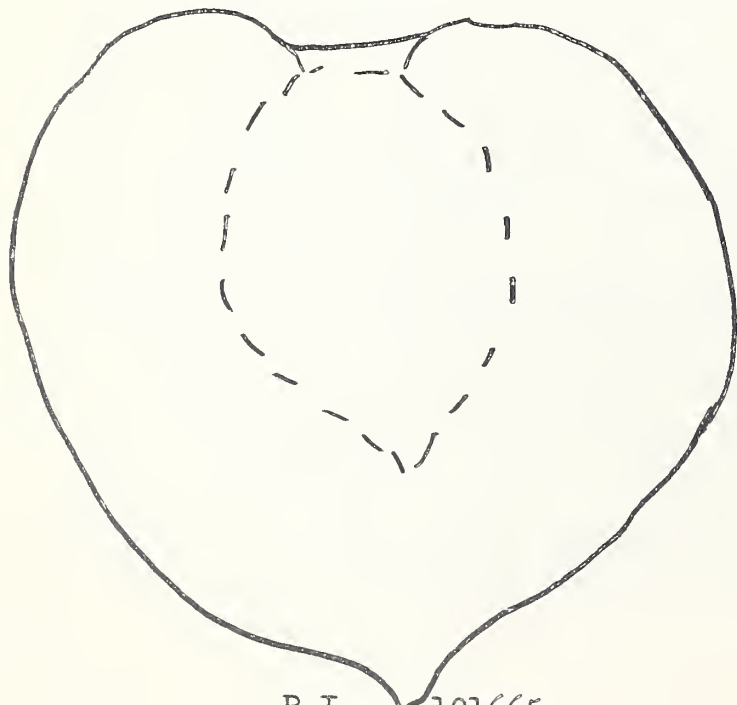
Time of full bloom: 3/30/38, 3/25/39, 3/24/40, 4/7/49, 3/28/50, 3/25/51 and 3/30/52; average date of full bloom for all years is March 29.



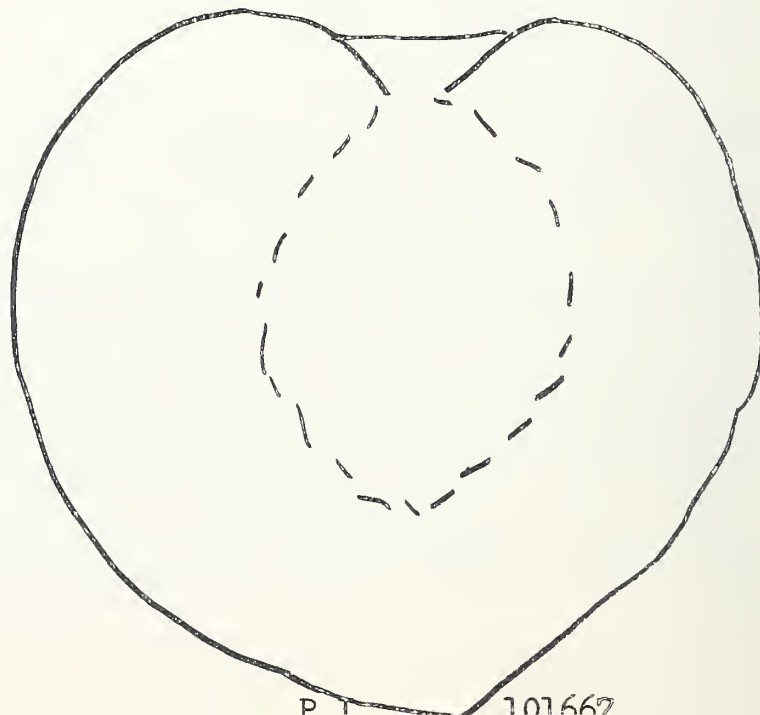
P.I. 101663



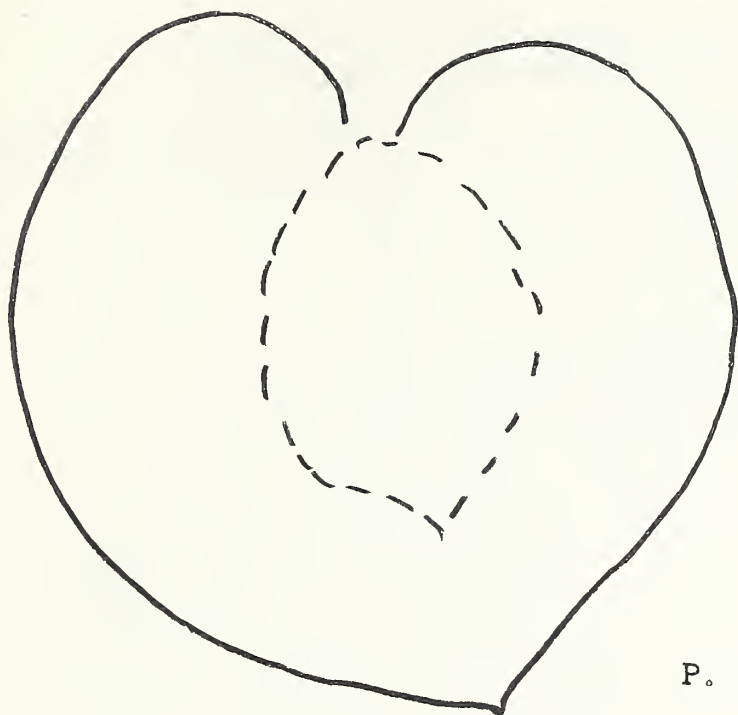
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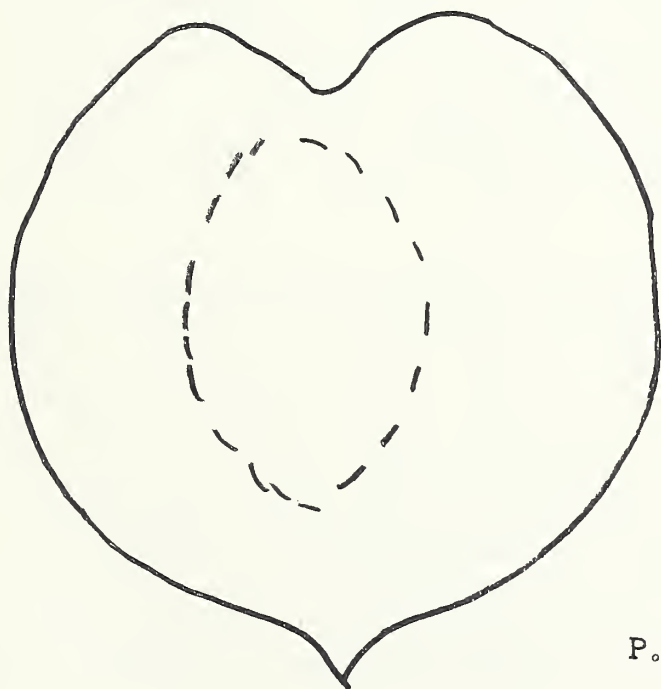
P.I. 101665



P.I. 101667



P. I. 101668



P. I. 101669



TA TAO or FEIPrunus persicaEvaluation DataU. S. Plant Introduction Garden, Chico, California

P.I. 101677 to 101689. Ta Tao or Fei peach numbers 15 to 27. Scions collected by Peter Liu of Peiping, China, obtained near the village of Sunchiachuang and Tiaochiatun, south of Feicheng.

23. TA TAO or FEI #15

P.I. 101677. Ta Tao or Fei #15. Fruit picked at Chico 8/30/37, 9/1/39 and 9/10/42 with seasons of 8/25-9/5/37, 8/28-9/10/39 and 9/4-16/42. Date ripe 9/2-6/56. The season of 101677 was 25 days later than Veteran in 1937; 16 days later than Lukens Honey and 9 days later than Lovell in 1939; 17 days later than Rio Oso Gem and the same time as Stanford in 1942; 13 days later than J. H. Hale in 1956. Crop light. Size variable, average measurements; length 7.9 cm., diameter 7.9 cm. and weight 315 gms. Shape regular, roundish to slightly conical, compressed along suture, diameters and halves unequal. Cavity medium depth, wide, regular, flaring. Suture: lips unequal, depth changing, mostly medium, length 1/2 circumference of fruit. Apex roundish. Pistillary point mucronate, somewhat pointed on some fruits. Skin: color greenish-white, practically no blush, appearance dull, medium thickness, ranges from somewhat tender to tough, skin of some fruits slightly astringent, semi-free to adherent to flesh, pubescence medium to heavy. Flesh: color greenish-white, moderate amount of red around pit, texture melting to medium-coarse. Juice abundant, colorless. Flavor mild, sweet. Quality fair. Stone cling, medium large in size. Fruit rather poor in appearance.

Time of full bloom: 4/5/38, 3/25/39, 4/8/49, 3/27/50, 3/27/51 and 3/25/52; average date of full bloom for all years is March 30.

24. TA TAO or FEI #16

P.I. 101678. Ta Tao or Fei #16. Fruit picked at Chico 9/2/41. Season 8/23-9/3/41. Date ripe 9/5/9/56. Season of 101678 was 15 and 16 days later than J.H.Hale in 1941 and 1956, respectively. Crop light. Size variable, average measurements: length 8.2 cm., diameter 9.5 cm. and weight 305 gms. Shape uniform, regular, roundish tending toward oblate, compressed along suture, diameters and halves unequal. Cavity medium depth, wide, flaring. Suture: lips unequal, depth changing, mostly medium, length one-half the circumference of fruit. Apex roundish. Pistillary point mucronate, pointed on a few. Skin: color greenish creamy-white, some light blush, appearance dull, thick, medium tough, adherent to flesh, pubescence light. Flesh: color greenish creamy-white, medium red around the pit, texture medium grained, somewhat tough and stringy. Juice abundant, colorless. Flavor sweet. Quality poor to fair. Stone cling, large in size.

Time of full bloom: 3/30/38, 3/22/39, 3/21/40, 4/8/49, 3/28/50, 3/27/51 and 3/27/52; average date of full bloom for all years is March 28.

Comments

Fruit large and unattractive, flesh bruises readily.

25. TA TAO or FEI #18

Prunus persica

P.I. 101680 Ta Tao or Fei #18. Fruit picked 8/24/37 and 9/8/42. Seasons, 8/24-9/3/37 and 9/5-18/42. Date ripe 9/2-4/56. The season of 101680 was 24 days later than Veteran in 1937. In 1942 it was 24 days later than J. H. Hale, 16 days later than Rio Oso Gem and 1 day earlier than Stanford. In 1956, it was 12 days later than J. H. Hale. Crop light. Size uniform, average measurements: length 8 cm., diameter 8 cm. and weight 262 gms. Shape irregular, roundish, compressed along suture, halves unequal. Cavity rather deep, wide, regular, flaring. Suture variable, mostly shallow, but distinct. Apex pointed. Skin: color greenish-white, thick, tough, adherent to flesh, pubescence medium to heavy. Flesh: color greenish creamy-white, some red around pit, texture meaty. Juice moderate. Flavor sweet, mild. Quality poor. Stone cling, large in size.

Time of full bloom, 4/4/38, 3/25/39, 3/23/40, 4/8/49, 3/27/50, 3/27/51 and 3/25/52; average date of full bloom for all years is March 29.

Comments

Fruit of no apparent value for itself.

26. TA TAO or FEI #19

P.I. 101681. Ta Tao or Fei #19. Fruit picked 9/9/37. Season 9/1-10/37. Date ripe 9/2-6/56. The season of 101681 was 31 days later than Veteran in 1937, and 13 days later than J. H. Hale in 1956. Crop light. Size uniform, average measurements: length 7.2 cm., diameter 7.6 cm. and weight 209 gms. Shape regular, roundish, compressed along suture, halves equal. Cavity rather deep, wide, regular, flaring. Suture shallow. Apex pointed, cut by suture. Skin: color creamy-white, some light blushing, medium thickness and toughness, adherent to flesh. Flesh: color creamy-white, some red around the pit, texture meaty. Juice moderate. Flavor sweet. Quality poor. Stone cling, large in size.

Time of full bloom: 4/4/38, 3/27/39, 3/23/40, 4/8/49, 3/27/50 and 3/27/51; average date of full bloom for all years is March 30.

27. TA TAO or FEI #20.

P.I. 101682. TA TAO or FEI #20. Fruit picked at Chico 8/30/37. Season 8/25-9/5/37. The season of 101682 was 25 days later than Veteran in 1937. Size uniform, average measurements: length 7.6 cm., diameter 8.3 cm. and weight 276 gms. Shape regular, roundish, compressed along suture, halves equal. Cavity deep, wide, regular, flaring. Suture shallow, but distinct. Apex roundish cut by suture. Skin: color greenish-white, very lightly blushed where exposed to sun, thick, tough, adherent to flesh, pubescence heavy. Flesh: color greenish-white, lightly stained with red around the pit, texture meaty. Juice moderate. Flavor sweet, mild, slightly bitter. Quality poor. Stone cling, large in size.

Time of full bloom: 4/5/38, 3/24/40, 4/6/49, 3/29/50 and 3/28/51; average date of full bloom for all years is March 31.

28. TA TAO or FEI #22

Prunus persica

P.I. 101684. Ta Tao or Fei #22. Date ripe at Chico 8/28-30/56. The season of 101684 was 7 days later than J. H. Hale in 1956. Crop light. Size fairly uniform, average diameter 8.4 cm. Shape roundish-ovate, compressed opposite suture. Cavity large. Suture medium depth. Skin: color greenish creamy-white, no blush, pubescence light to light-medium, appearance dull. Flesh: color creamy-white with a trace of red around the pit, texture medium-coarse, stringiness very light. Juice abundant. Sugar content medium to high, acid very low to low, aroma low to medium. Quality poor to fair. Fruit very firm. Stone fully cling, large in size, split pits. Kernel bitterness medium.

Time of full bloom: 4/3/38, 3/25/39, 3/24/40, 4/8/49, 3/29/50 and 3/28/51; average date of full bloom for all years is March 30.

Comments

Size and high sugar content of interest, but clingstone.

29. TA TAO or FEI #23

P. I. 101685. Ta Tao or Fei #23. Fruit picked at Chico 8/24/37. Season 8/24-9/3/37. Date ripe 9/2-4/56. The season of 101685 was 24 days later than Veteran in 1937 and 12 days later than J. H. Hale in 1956. Crop light. Size uniform, average measurements; length 8.3 cm., diameter 8.6 cm. and weight 301 gms. Shape regular, roundish, compressed along the suture, halves equal to some, unequal on others. Cavity deep, wide, regular, flaring. Suture shallow, but distinct. Apex pointed. Skin: color greenish-white, lightly blushed where exposed to sun, thick, tough, adherent to flesh, pubescence medium to heavy. Flesh: color greenish creamy-white, some red around pit, texture meaty. Juice moderate. Flavor sweet. Quality poor. Stone cling, medium-large size.

Time of full bloom: 3/30/37, 4/5/38, 3/25/39, 3/25/40, 4/4/49, 3/27/50 and 3/28/51; average date of full bloom for all years is March 29.

Comments

Fruit appears to be of little value in itself.

30. TA TAO or FEI #24

P.I. 101686. Ta Tao or Fei #24 Date ripe at Chico 9/4-8/56. The season of 101686 was 15 days later than J. H. Hale in 1956. Crop light. Size, average diameter 8 cm. Shape round-ovate, from short to long beaked. Cavity medium-large, flaring. Suture medium to deep. Skin: color greenish creamy-white, no blush, pubescence medium-heavy. Flesh: greenish-white, light to medium red color around the pit, texture medium grained, trace of stringiness. Juice medium. Sugar content high, acid very low to low. Aroma low. Quality fair. Fruit firm to very firm. Stone fully cling, large in size. Kernels aborted.

Time of full bloom: 3/24/40, 4/8/49, 3/30/50, 3/28/51, 3/28/52 and 3/21/53; average date of full bloom for all years is March 28.

Comments

Sweetness, mildness and size of interest. Split pits and aborted kernels a bad feature.

31. TA TAO or FEI #25

Prunus persica

P.I. 101687. Ta Tao or Fei #25. Fruit picked at Chico 9/9/37 and 9/8/42. Seasons 9/5-15/37 and 9/4-17/42. Date ripe 9/2-4/56. The season of 101687 was 36 days later than Veteran in 1937; it was 28 and 12 days later than J. H. Hale in 1942 and 1956, respectively. Crop light. Size uniform, average measurements: length 8.6 cm., diameter 8.6 cm. and weight 344 gms. Shape, regular, roundish, compressed along the suture, halves equal. Cavity rather deep, wide, regular, flaring. Suture medium depth. Apex pointed, cut by suture. Skin: color greenish-white, thick, tough, adherent to flesh, pubescence medium. Flesh: color creamy-white, some red around the pit, texture meaty. Juice moderate. Flavor sweet, quality poor. Stone cling, large in size.

Time of full bloom: 4/3/38, 4/1/39, 3/23/40, 4/9/49, 3/27/50, 3/27/51 and 3/26/52; average date of full bloom for all years is March 30.

32. TA TAO or FEI #26.

P.I. 101688 Ta Tao or Fei #26. Fruit picked at Chico 9/1/39 and 9/8/42. Seasons, 8/28-9/8/39 and 9/3-18/42. The season of 101688 was 14 days later than Lukens Honey and 7 days later than Lovell in 1939; it was 23 days later than J. H. Hale and 15 days later than Rio Oso Gem in 1942. Size variable, average measurements; length 7.0 cm., diameter 7.0 cm. and weight 181 gms. Shape irregular, roundish, compressed along the suture, halves equal. Cavity fairly deep, medium to wide, regular, flaring. Suture shallow, but distinct. Apex variable, mostly mucronate, some distinctly pointed. Skin: color light greenish-yellow, thick, tough, adherent to flesh, pubescence short and heavy. Flesh: color greenish creamy-white, medium amount of red around pit, texture meaty, slightly stringy. Flavor sweet, mild. Quality poor. Stone cling, large in size.

Time of full bloom: 4/1/49, 3/27/50, 3/26/51 and 3/21/52; average date of full bloom for the four years is March 26.

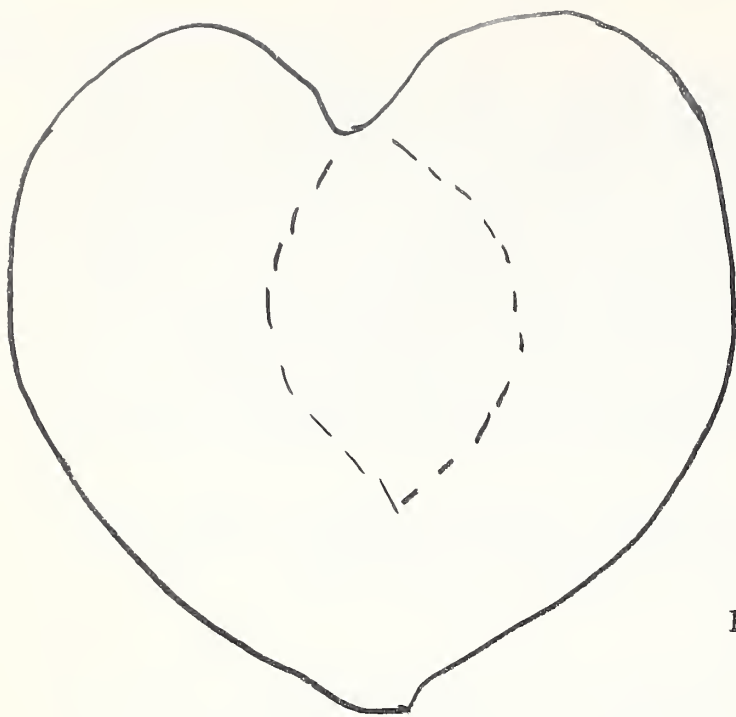
Comments

No apparent value for fruit.

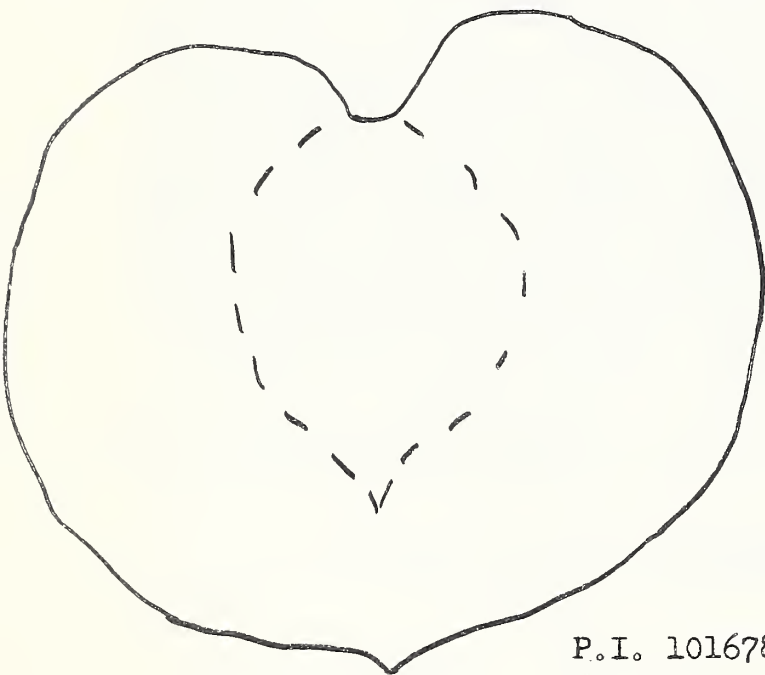
33. TA TAO or FEI #27.

P.I. 101689. Ta Tao or Fei #27. Fruit picked at Chico 9/9/37 and 9/8/42. Seasons 9/5-15/37 and 9/4-18/42. Date ripe 9/2-6/56. The season of 101689 was 24 and 23 days later than J. H. Hale in 1942 and 1956, respectively. Crop light. Size fairly uniform, average measurements; length 9.2 cm., diameter 9.8 cm. and weight 454 gms. Shape regular, roundish, compressed along the suture, halves equal. Cavity deep, medium width, regular, flaring. Suture shallow, but distinct. Apex pointed, cut by suture. Skin: color greenish-white, thick, tough, adherent to flesh, pubescence medium to heavy. Flesh: color creamy-white, some red around the pit, texture tender. Juice rather abundant. Flavor sweet. Quality poor. Stone cling, large in size.

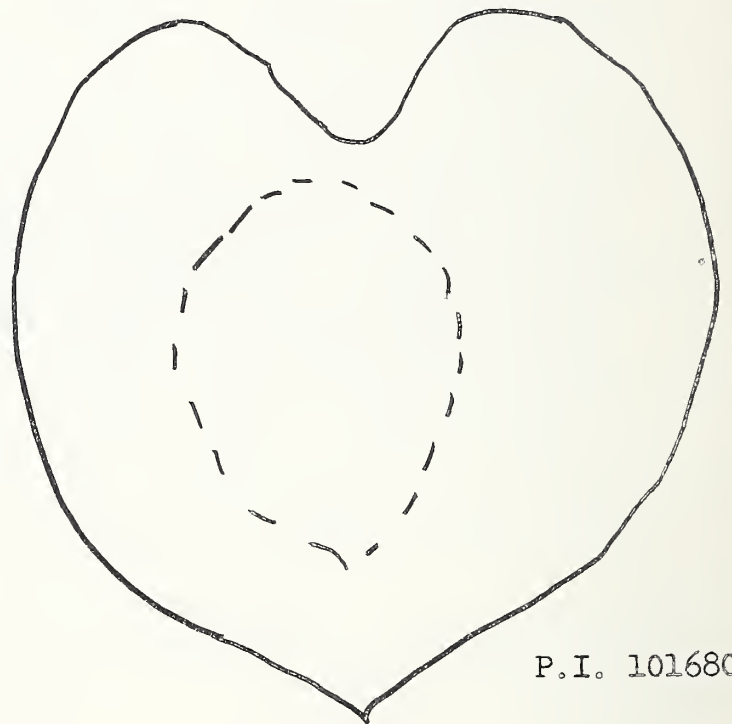
Time of full bloom: 3/30/38, 3/20/39, 3/23/40, 4/5/49, 3/27/51 and 3/25/52; average date of full bloom for all years is March 27.



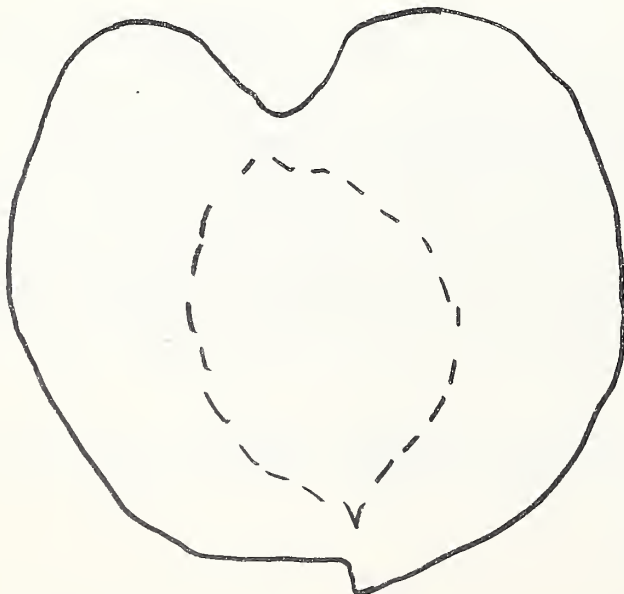
P. I. 101677



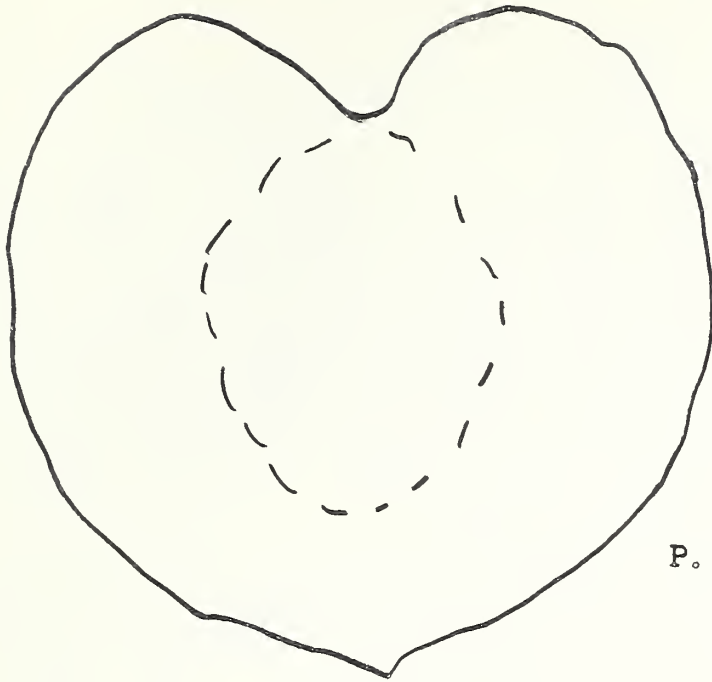
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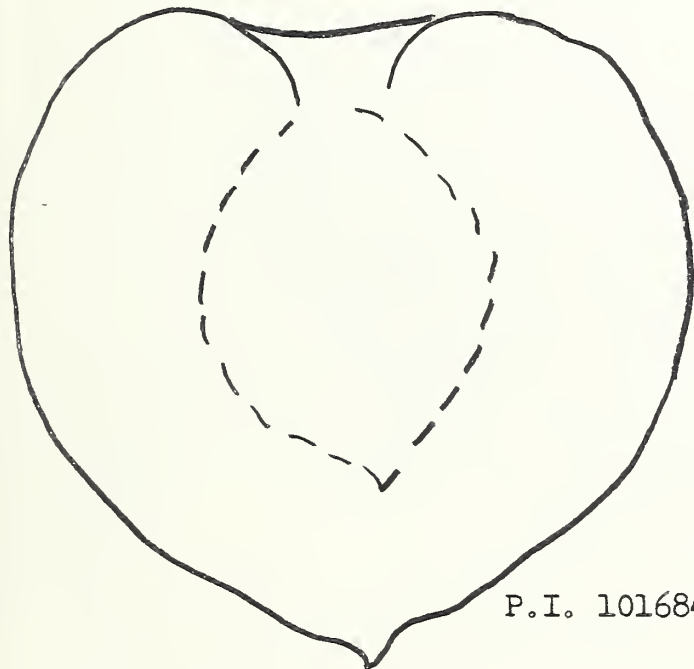
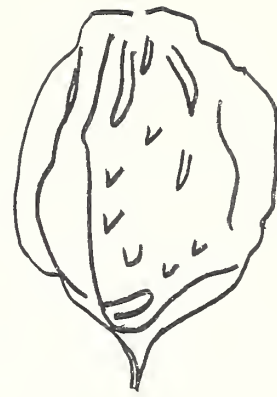
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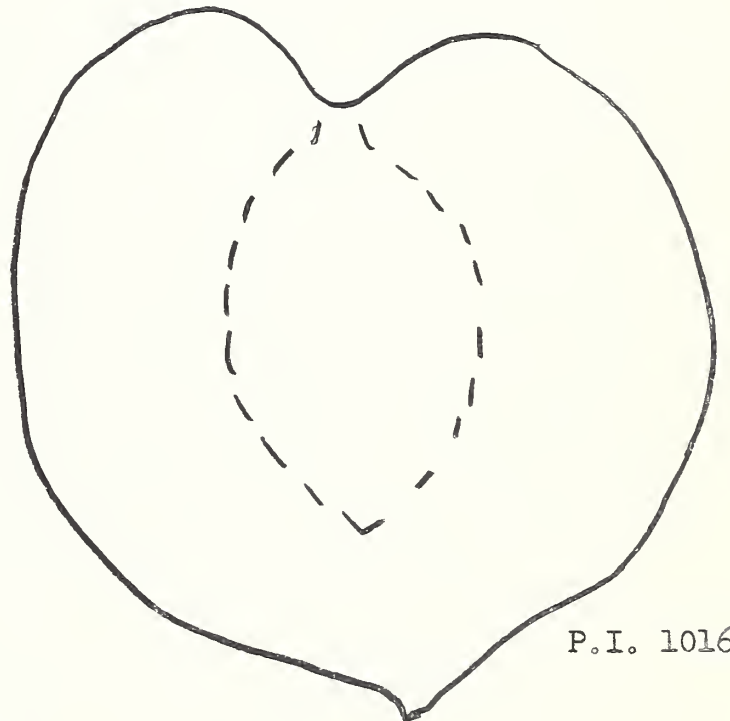
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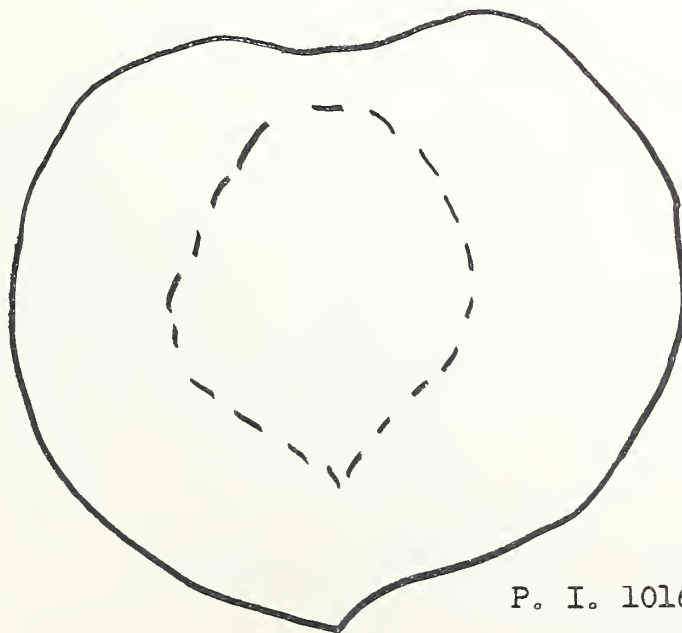
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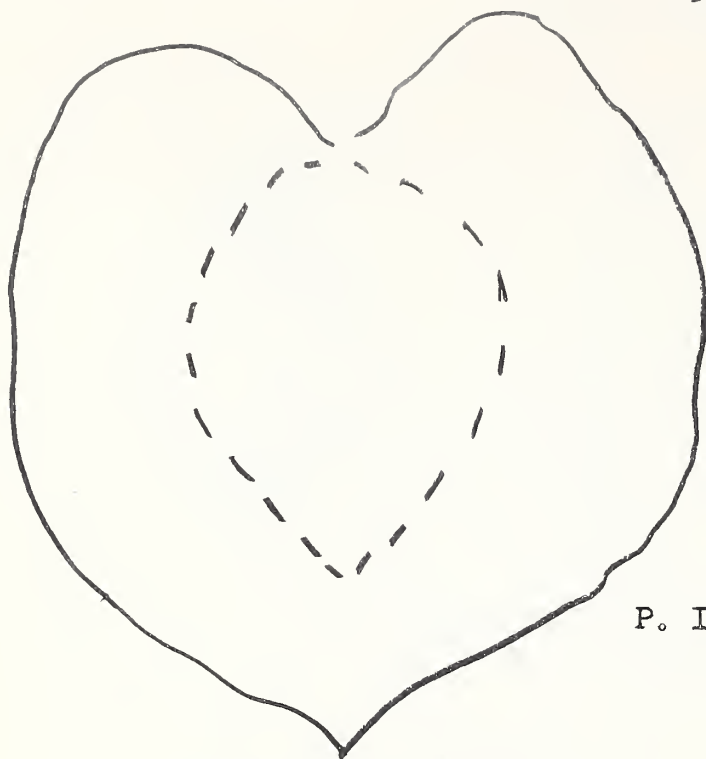
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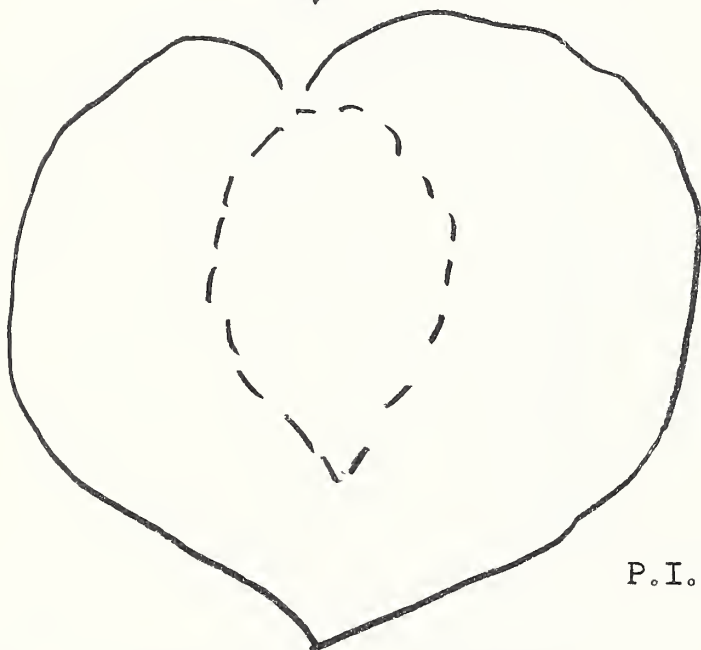
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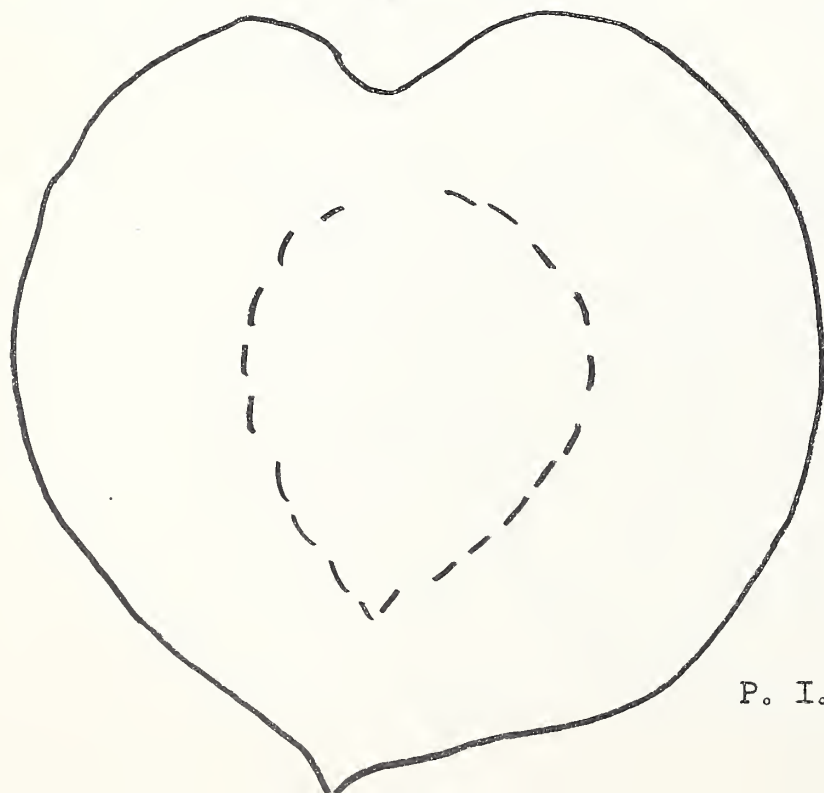
P. I. 101686



P. I. 101687



P.I. 101688



P. I. 101689



Miscellaneous notes on clones P. I. 101663 through P. I. 101689

All clones of this series have certain phenological characteristics in common. The general qualities of both trees and fruits make this group stand out as unique when compared with most commercial type peaches. Trees are mostly upright in growth and of considerable size; they tend to average about fifty per cent larger than most of the surrounding peaches. Blossoming and leafing are very late. Among approximately 900 peaches and nectarines blossoming at Chico, 19 of the 20 clones in this group are included among the latest 34 clones as based upon the average full bloom of the four years, 1949, 1950, 1951 and 1953; P. I. 101663 appears to be somewhat earlier on the average than the others.

The flowers of all clones in this series are pink, large, round-petaled and showy. The flowers of 101677 and 101689 are somewhat darker in color and those of 101686 are smaller in size, but otherwise all flowers are very similar. Trees are usually light in bearing. Fruit is mostly very large and sweet. The quality of sweetness is quite different from that of many peaches; the sugariness is much like that of some Peento type peaches at the Chico Station. Leaf curl susceptibility is low a rating of 1 being given in a 0 to 5 possible range for all clones except 101677, 101680, 101685, 101688 and 101689, which received a rating of 2. Leaf glands are reniform for all clones except 101663, which appears to have both reniform and globose glands. Some of the most severe delay in foliation of any peach or nectarine clones on the station was observed among the trees of this series in the spring of 1953 and again in 1956. In 1956 ratings from 4 to 5 were given for delay in foliation in a 0 to 5 range. Observations made on 4/10/56 disclosed that the trees of this series ranged from less than 20 per cent full leaf up to approximately 60 per cent of full leaf. Leafing was very straggly with only terminals attaining normal full leaf. By 5/9/56 most trees appeared to have attained full leaf, but evidence of sparse leafing was obvious throughout the entire summer.

